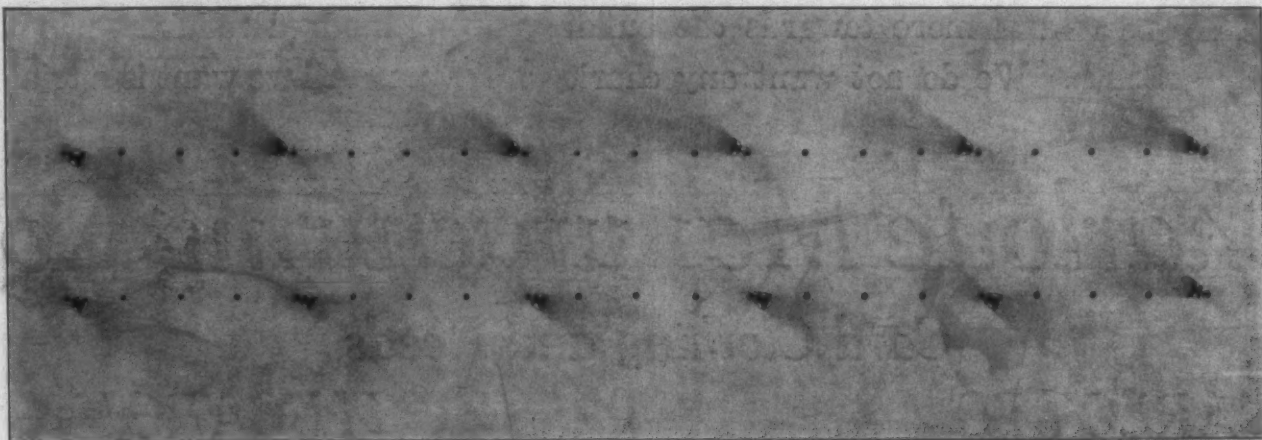


ANNUAL REVIEW NUMBER
SOUTHERN
TEXTILE BULLETIN

VOLUME 25

CHARLOTTE, N. C., THURSDAY, JANUARY 31, 1924

NUMBER 23



TYPICAL INSTALLATION OF BAHNSON HUMIDIFIERS, SHOWING DISTRIBUTION OF HUMIDIFIED AIR

Humidifiers are mounted on columns whenever practicable, thus avoiding all unsightly overhead drain piping in bays. Note perfect horizontal circulation of air. Humidity escapes from any room chiefly through the walls and windows, and experience has shown that with proper horizontal circulation the center of the room always has sufficient humidity when the outer bays are properly supplied.

BAHNSON—

The Unmatchable System of Humidification

To secure the highest efficiency in a humidifying system, it is necessary to have a humidifier that will not only put water into the air, but thoroughly mix the water with the dry air, then distribute the moisture into every portion of the room.

The large volume of air moved by Bahnson Humidifier fans assures even distribution of moisture throughout the room.

The Automatic Control on each Bahnson Humidifier graduates the feed of water to the humidifier in accordance with the conditions of the air around it.

These are special Bahnson features, and are found only in the BAHNSON HUMIDIFIER.

May we send you further particulars on the BAHNSON SYSTEM of humidification.

The Bahnson Company

Humidification Engineers

Winston-Salem, N. C.

New York Office: 437 Fifth Ave.

To you whom it concerns

We take this opportunity to thank our friends whose loyal support has enabled us in twelve years to build up a business of which we feel justly proud. If the mill men of the South will patronize a home-made article, the only one of its kind manufactured in the South, we can do a great deal more towards the building up of kindred industries in the South. We do not want any charity or favors. All we want is a trial.

Charlotte Manufacturing Co.

Card Clothing and Reeds

CHARLOTTE,

NORTH CAROLINA

INCORPORATED 1911

A Shuttle That Exceeds Expectations

The best shuttles are always a good investment—no matter the cost. There is no economy in using a shuttle that is low in first cost. Williams' shuttles have invariably entrenched themselves in the opinion of Mill Men who demand the most. It is the policy of this entire organization to keep our products better than what our most exacting buyer expects. The name Williams on your shuttle means—

PERFORMANCE
PRODUCTION
PROFIT

The J. H. Williams Co.

"The Shuttle People"

George F. Bahan, Southern Rep.

MILLBURY,

MASS.

VOGEL

Frost Proof Closets

Over 300,000 giving satisfaction. Save water; Require no pit; Simple in the extreme. The most durable water closet made. In service winter and summer.



Enameled roll flushing rim bowls.

Heavy brass valves.

Strong hardwood seat.

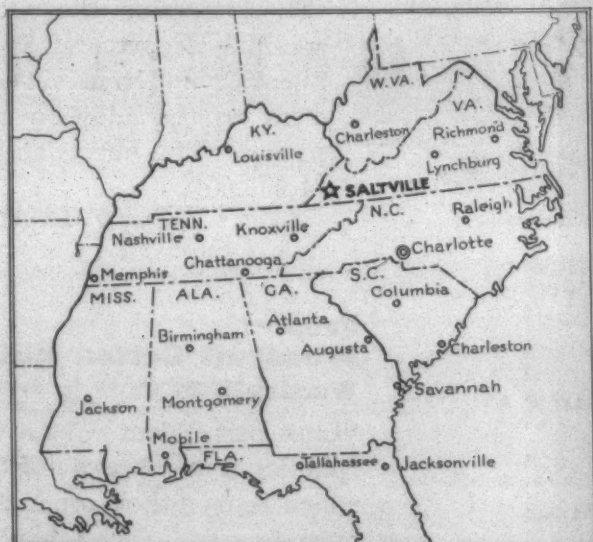
Heavy riveted tank.

Malleable seat castings will not break.

SOLD BY JOBBERS
EVERYWHERE

Joseph A. Vogel Co. Wilmington, Del.

MATHIESON Chemicals



Saltville is located on the Norfolk & Western Railway, 37 miles from the line of the Southern Railway at Bristol, Va.-Tenn.

For all points in the South, freight differentials are overwhelmingly in our favor over any other plant manufacturing soda products.

The Strategic Position of Our Southern Plant

SALT is the starting-point in the manufacture of all Mathieson Chemicals and enormous quantities are required. The great salt deposits at Saltville, Va., determined the selection of that site for our Southern plant over thirty years ago.

These deposits have been worked since Colonial days and occupy a prominent place in the pages of American History.

Our Saltville plant is the logical source of supply for all Southern consumers of Soda Products. We serve you direct from the works in both carload and less-than-carload quantities.

The MATHIESON ALKALI WORKS Inc.
25 WEST 43rd STREET NEW YORK CITY

PHILADELPHIA
PROVIDENCE

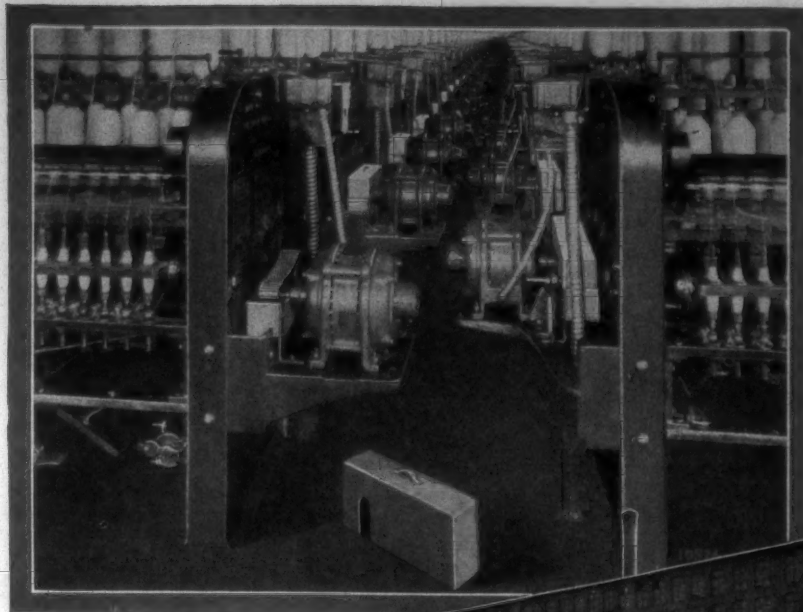
CHICAGO
CHARLOTTE

Deal Direct with the Manufacturer

*Bicarbonate of Soda
Liquid Chlorine-Caustic Soda*



*Sesquicarbonate of Soda
Bleaching Powder-Soda Ash*



254 Link-Belt Silent Chains of 5 and 7½ H. P. for driving spinning frames and 20 Link-Belt Silent Chain group drives of 30 H. P. for driving 1,760 looms are in service at this plant.

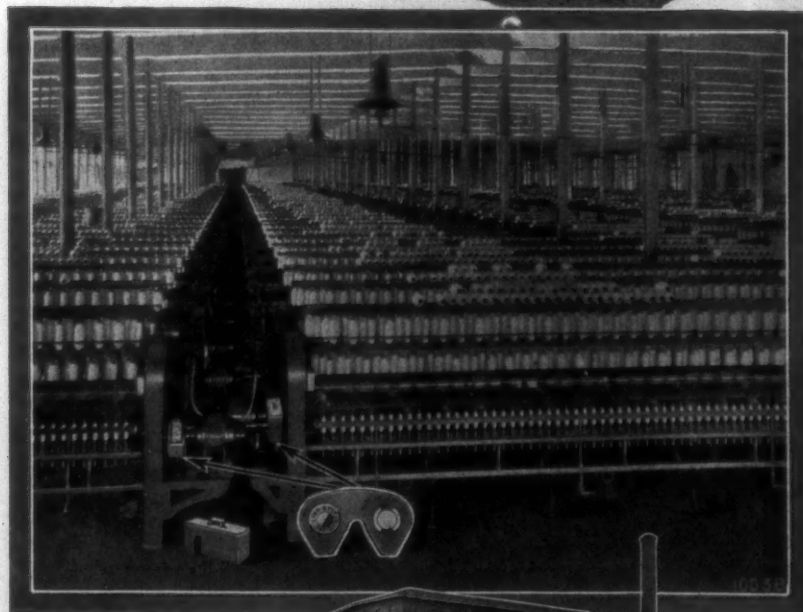


Where Link-Belt Drives are \$12,054.73 Read What the

**From—
Pacolet Manufacturing Co.,
New Holland, Ga.**

"By increasing the production of our spinning department 5%, our Link-Belt Silent Chain Drives are doing work equivalent to the addition of 12.7 spinning frames. This effects an annual saving of \$1,905.00".

W. D. Anderson, Supt.



In this building there are 99 frames driven by 5 H. P. motors and 71 warp frames driven by 7½ H. P. motors. All these are equipped with Link-Belt Silent Chains, a total of 170. The motors are 1,740 R. P. M.

**From—
Woodruff Cotton Mills,
Woodruff, S. C.**

"Link-Belt Silent Chain Drives on our spinning frames are saving \$3,443.09 a year, which repays their original cost in a little over a year. They have improved the quality of our product, reduced delays due to breakdowns, and increased the efficiency of our workmen by making the spinning room quieter and lighter".

J. N. Smith, Supt.

These statements, detailed in full, can be had in their complete form, from any Link-Belt office.

LINK-BELT

PHILADELPHIA, 2045 Hunting Park Ave.

CHICAGO, 300 W. Pershing Road

OFFICES IN

1210

LINK-BELT

Silent Chain Saving Annually Users Say:—

**From—
Brandon Mills,
Greenville, S. C.**

"Eliminating the slip from our spinning frames drives, Link-Belt Silent Chain Drives and individual motors have increased the production of the spinning department 3% and saved us \$2,700 a year in wages alone".

C. E. Hatch, General Manager.

**From—
American Spinning Company,
Greenville, S. C.**

"The installation of Link-Belt Silent Chain Drives on our spinning frames has eliminated the slip of belts, thereby increasing our production 6%, and saving us \$4,006.64 annually. At this rate, the chains repay their cost every year".

Thomas A. Sizemore, Supt.

*Facts speak for themselves.
Now let us show you what
Link-Belt Silent Chain Drives
can accomplish for you.*

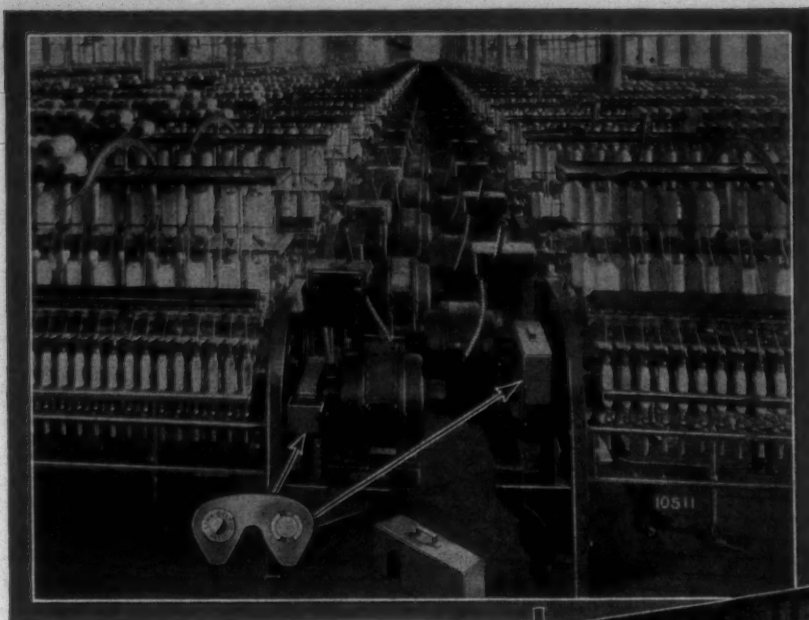
COMPANY

INDIANAPOLIS, 515 N. Holmes Ave.

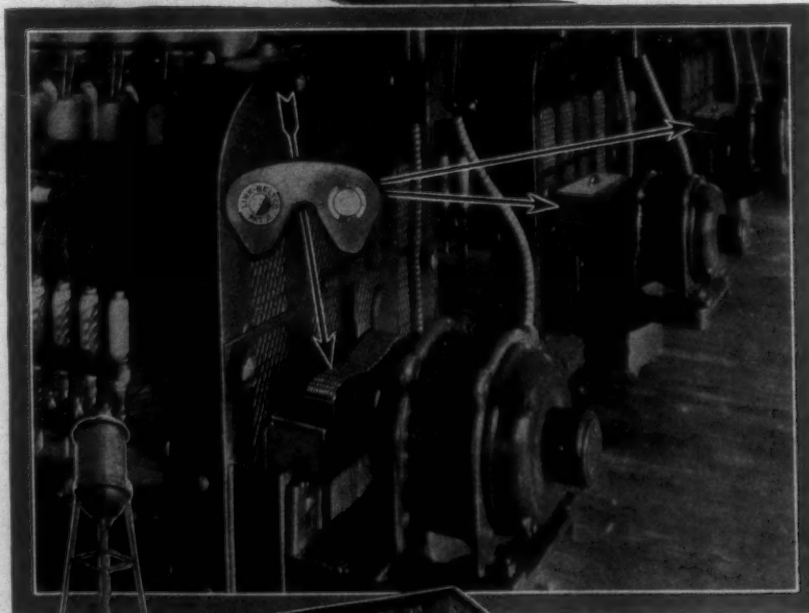
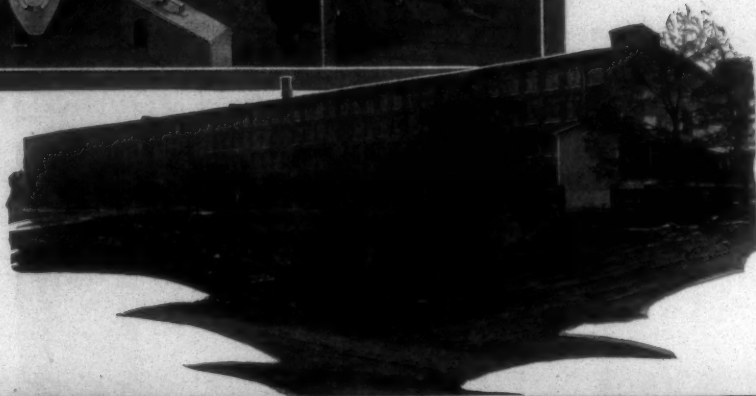
TORONTO, Wellington and Peter St.

INDUSTRIAL CENTERS

1210



This company employs 156-7½ H. P. Silent Chain Drives on spinning frames at this plant. Motors are 1,760 R. P. M. reduced through chain to 950 to 1,100 R. P. M.



One of the first mills to use Link-Belt Silent Chain for driving spinning frames. At this plant are 184 Link-Belt Silent Chain Drives—93 are 5 H. P. and 91 are 7½ H. P.

SILENT CHAIN



ENGINEERING

Turbines

Developments during the year on large turbines consisted of refinement in mechanical details without radical changes in construction. The outstanding features were the production of turbines for high steam conditions and the production of turbines in unprecedented volume.

Shipments for 1923, exclusive of turbines for mechanical drive and ship propulsion, had a total capacity of approximately 1,660,000 kw.

Supercharger

A new turbine supercharger for airplanes was designed and built specifically for extreme altitude operation. It is rated to feed sea-level atmospheric pressure to the engine at a height of 35,000 ft., or about twice the rating of the one used in the previous American altitude record flight.

Electric Propulsion

Diesel-electric propelling equipments were adopted for two ships of a new type, built for canal, river, lake and coastwise service. At the close of the year there were G-E electric propelling equipments completed or under construction for 14 ships, making the aggregate rating of this class of machinery, from 1908 to date, more than 550,000 shaft h.p. for 45 ships.

Electric Railways

As in the preceding year the more important additions to main line electrification occurred in foreign countries, and it is noteworthy that in a majority of cases the 3000-volt direct-current system was adopted.

Progress included the initial operation of 3000-volt equipment on the Spanish Northern Railway in Spain and the completion and test of ten 150-ton, 3000-volt locomotives for the Mexican Railway Company, Ltd. Two more 66-ton d-c. locomotives were placed in service by the Japanese Imperial Government Railways.

Automatic Railway Substations

The use of automatic substations continued to be popular with electric railways. At the close of the year there were 70 railway companies using G-E Automatic Substations with 225 equipments aggregating more than 170,000 kw. capacity either in service or under

construction. Thirteen railways were using equipments with capacities of 4000 kw. and above.

Automatic Stations

The largest single-unit automatic hydro-electric station in the world is being installed by the Adirondack Power & Light Corporation for their Sprite Creek Development near Little Falls, N. Y. It is rated 7500 kv-a., 6000-volt, 3-phase, 60-cycle, the largest previous equipment of this type being of 5000 kv-a. capacity.

Waterwheel Generators

The first of the two 65,000-kv-a. waterwheel generators for the Niagara Falls Power Company was completed and shipped in sections to the power site for assembly. It is the largest machine of its type, both in capacity and physical dimensions, so far constructed.

Frequency Converters

A frequency converter of exceptional capacity and unusual characteristics was constructed for tying together the 25- and 60-cycle systems of the United Electric Light & Power and the New York Edison Companies.

Switching Apparatus

The developments in switching apparatus consisted largely in the improvement of existing designs rather than in bringing out strictly new types of apparatus. Both horizontal and vertical isolated phase arrangements were worked out in detail for several important installations and the application of breakers to removable trucks was extended to include motor-operated breakers with separating chambers.

Relays

A new type of induction overload relay has as an outstanding feature a target which is "built in" the relay and indicates when the relay has functioned to trip the particular circuit which it controls.

Transformers

The recent tendency to concentrate the transformation of electrical energy in units of increasing capacity was evidenced by the construction of a large number of transformers of record size. A notable event of the

year was the placing in service of the 220,000-volt units at Power House No. 8 of the Southern California Edison Company's system.

Induction Voltage Regulators

A new design single-phase induction voltage regulator was developed, which embodies a number of improvements as compared with previous types. In addition to improving the voltage regulation by a more rapid correction of voltage changes, it utilizes a tank which is highly resistant to rupture as a result of explosions, and a rigid internal mechanical structure to minimize noise during operation.

Lightning Generator

The lightning generator installed in the High Voltage Laboratory of the Pittsfield Works will produce voltages of approximately 2,000,000 above ground. This is perhaps higher than lightning voltages that are usually produced on transmission lines.

Lightning Arresters

A new type of oxide film arrester, known as the pellet arrester, was developed commercially.

X-Ray Tubes

A new tube having 15 times the X-ray energy of the average tube now in commercial use, was produced for therapeutic work.

It is rated 250,000 volts, 50 milliamperes, and is provided with cooling coils which carry the circulating water direct to the back surface of the anode.

Electrically Operated Flow Meters

A G-E electrically operated flow meter with many new characteristics was developed for accurately measuring the total flow of steam, water, air, gas, oil, etc., through pipes. It does not supersede the G-E mechanically operated flow meter.

Industrial Motors

A new single-phase motor which operates on the squirrel cage induction principle was developed which eliminates entirely the short circuiting switches heretofore considered essential and permits the simplest possible construction.

GENERAL

DEVELOPMENTS 1923

Industrial Motor Control

A number of improvements were made in the apparatus designed for the control of industrial motors, which, despite the relatively small size of the individual controllers, are of great economic value due to the vast extent of the field of present day industrial motor application.

An ingenious design of a magnetic switch, provided with a thermal overload relay, was developed to meet the demand for starters of compact construction and for mounting in the frames of machines.

Motor Applications

To meet the requirements of the Russian Government in regard to electrical equipment for oil well drilling, two totally enclosed induction motors were developed rated 75 h.p. and 50 h.p., 750 r.p.m., with a temperature rise of 45 deg. C. These motors are unique in that they are the largest totally enclosed, self-ventilated motors yet manufactured, previous designs in these sizes having employed water for cooling.

Steel Mills

There was added to the existing main roll drives, 300 h.p. and over, 44,100 h.p. (normal continuous rating) bringing the total to 612,110 h.p. The tendency towards the use of high-speed motors with reduction gears which has been quite marked for the last few years continued to gain headway and over 90 per cent of the new motors were for geared drive.

One of the most important developments of the year was the building of alternating-current brush-shifting motors with shunt characteristics.

Electric Welding

The most important achievement in arc welding was a radical improvement in the construction of the electrode. As the result of exhaustive research and experiment, a mechanical construction was developed which makes it easy to combine the desired welding flux within the body of the electrode.

Induction Furnaces

Fifteen 75-kw., 1200-lb. induction furnaces were placed in commercial operation in 1923 for melting non-

ferrous metals, and a number of additional units were under construction.

A notable accomplishment of the repulsion-induction furnace was the successful melting of pure copper on a commercial basis.

Industrial Heating

A special furnace was developed for annealing steel punchings used for field and armature laminations. It is built 6 ft. above the floor on a structural steel support, and the laminations are placed on a car which is rolled under the furnace and raised into the heating chamber on a hydraulic platform.

Battery Chargers

A new constant potential motor-generator $7\frac{1}{2}/15$ -volt battery charging outfit was produced, which includes a special regulator to maintain the voltage constant at the busbars, regardless of the number of batteries being charged.

Photo Electric Cell

An extremely sensitive photo electric cell was developed, consisting of a small bulb into which two electrodes are sealed.

This photo-electric cell has already been applied commercially in the mechanical sorting of cigars according to color.

Conductor Cable

The manufacture of 66,000-volt single-conductor cable was for the first time placed on a commercial basis.

The cable produced can transmit upwards of 33,000 kw. at 66,000 volts. It is slightly over three inches in diameter and requires 250,000 volts to puncture.

High Voltage D-C. Cable Testing Sets

The purpose of direct-current testing sets is to permit power companies to make satisfactory periodic test of underground cables, to determine the condition of insulation between conductor and ground and to locate cable faults, and measurements of insulation resistance. Three types of equipment were developed and standardized for this service.

Radio

The improvements in vacuum tubes for radio purposes were mostly in the direction of increased efficiency of operation and a general betterment of electrical characteristics.

It is also interesting to note that during the year there was started in regular production a new tube of the highest power so far standardized, and also the smallest tube requiring the least power expenditure in the filament that has so far been made available.

Carrier Current

The carrier current system of telephony, which effects communication by means of high frequency currents superimposed on the power conductors of transmission lines, was applied over greater distances than heretofore by the production of a 250-watt transmitter and receiving equipment. The rating of the previous outfit was 50 watts and its maximum range in actual installation was 88 miles.

Lighting

The volume of sales of incandescent lamps serves as a reasonably accurate measure of the expansion of the lighting business. It is estimated that about 225,000,000 large tungsten filament lamps were sold in the United States during the year 1923. This is nearly 11 per cent increase over 1922, and exceeds any previous year. The figures do not include the sale of miniature lamps.

Street Lighting

Traffic continues to multiply so rapidly that the present systems of lighting on thoroughfares in most cases are inadequate and, in an effort to correct this condition and relieve night congestion of traffic, many cities have realized the necessity of revamping their entire street lighting systems. There is a noticeable trend toward high-intensity lighting in the business districts.

Extracted from illustrated article by John Liston, *General Electric Review*, January. Complete article on request. Ask for Publication X767, General Electric Company, Schenectady, N. Y.

95-814

ELECTRIC

1824 —

100th ANNIVERSARY

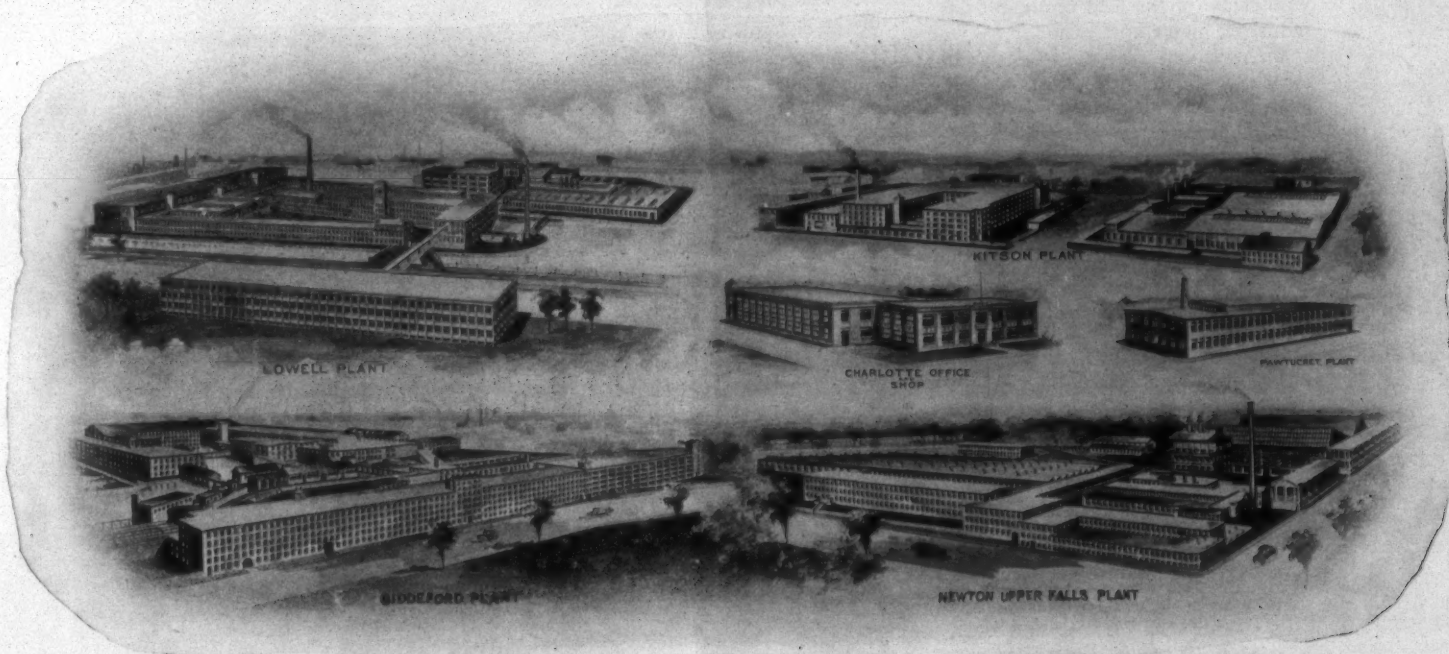
— 1924

SACO — LOWELL

TEXTILE MACHINERY

Oldest and Largest Builders in America

Organized 1824



COTTON MACHINERY

Opening and Conveying Equipment
Pickers and Cleaners
Cards—Drawing Frames
Roving—Spinning
Spoolers—Warpers
Twisters—Slashers
Size Kettles and Pumps

SPUN SILK

Filling Engines
Rotary Spreaders
Intersecting Gill Spreaders
Intersecting Gill Drawing
Rotary Drawing
Roving
Spinning—Twisting
Trap and Gassing Spoolers

ACCESSORIES

Spinning and Twister Spindles
Spinning and Twister Rings
Roving Flyers
Fluted Rolls
Warper Beams
Tie Cutters
Hank and Leese Clocks
Flyer Balancing Machines
Card Stripping Equipment

WORSTED MACHINERY BRADFORD SYSTEM

Revolving Creels
Gill Boxes
Drawing Boxes
Weigh Boxes
Dandy and Cone Rovers
Spinning and Twisting
Jack Spoolers

FRENCH SYSTEM

Intersecting Mixers
Intersecting Gill Boxes
Heavy Drawing Frotteurs
Reducers
Drawing Frotteurs
Intermediate Frotteurs
Fore Finishers
Finishers
Spinning and Twisting

WASTE RECLAIMING AND SPINNING MACHINERY

Executive Offices: 77 Franklin St., Boston, Mass.

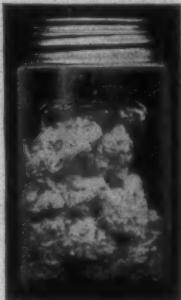
ROGERS W. DAVIS, Southern Agent, CHARLOTTE, N. C.
1300 Mint Street.

Southern Branch Office, Greenville, S. C.



Yarn is stored and conditioned for about 12 hours in the room on the other side of this partition

Before



Reelings of Yarn taken direct from cone before conditioning.

This apparatus heats the air very hot, produces a high humidity and circulates it in the conditioning room. The high heat softens the waxy constituent of the cotton. The humidity sets the twist. The rapid circulation of air eliminates free moisture.

Conditioned Yarn

makes friends, whether you
use it yourself
or sell it

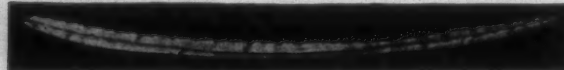
After



Reelings taken from same cone after treatment 12 hours 95° F 98° RH.



Same Reelings—Note tension required to eliminate kinks

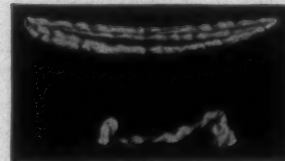


Conditioned—and twist stays but snarls and kinks go.



Other Samples

These photographs were made not by us but by a customer who had operated our conditioning apparatus for five months. They represent his actual and current practice on a production basis.



Other Samples

Textile mills producing sales yarn, especially hosiery yarns, knitting mills and hosiery mills find this apparatus particularly helpful.

There is more on this subject in our Bulletin 322



Parks-Cramer Company

*Engineers & Contractors
Industrial Piping and Air Conditioning*

Fitchburg

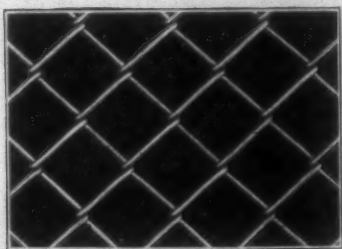
Boston

Charlotte





but don't make carelessness easy



Interlocked!

Page Panel Partitions are *not* made of diamond mesh, but of Page Square Mesh Wire Link, like that used in the famous Page Protection Fence. Wires cannot be forced apart.



Valuable equipment—tools and materials—should be protected as a matter of course. To leave them within reach of careless hands is unfair both to you and your employees.

Page Standard Panel Partitions will protect your equipment and make for greater neatness and order in your plant. In standard sizes 4 ft. by 8 ft. they quickly form a strong, safe enclosure of any dimensions. (Special sizes to order.)

Light, strong, fireproof, sanitary, Page Partitions occupy little space and have 100% salvage value. Compartments may be enlarged or reduced in size, or moved as occasion demands. Swinging or sliding doors, interchangeable with panels. Wickets with hinged shelves. Finished, painted, ready to set up. Your workmen can install them.

A distributor near you carries a complete stock of Page Products, ready for immediate shipment. For his name and address, write,

PAGE FENCE & WIRE PRODUCTS ASSOCIATION
207 N. Michigan Ave., Chicago

PAGE Standard Panel Partition

Made by the Makers of Page Protection Fence

Foster Machine Company

1923 saw the adoption by many mills making ply yarns, of the Foster Two Process System of Doubling. This system comprises two machines.

The First Process is done on the Model 12A single end winder. On this machine the yarn is taken from the spinning bobbin and wound onto a slightly tapered wood cone.

The yarn is mechanically cleaned of slubs and imperfections in this process.

The cone packages from the First Process furnish supply for the Second or Doubling process, doubling 2, 3 or 4 ends up onto a wood tube, containing up to 6 lbs. of yarn, which in turn goes to the twister creel.

The use of this Foster System has brought about an improvement in the quality of ply yarns especially for Mercerizing and Thread that insures the highest quality, high breaking strength, perfect twist and elimination of all double knots.

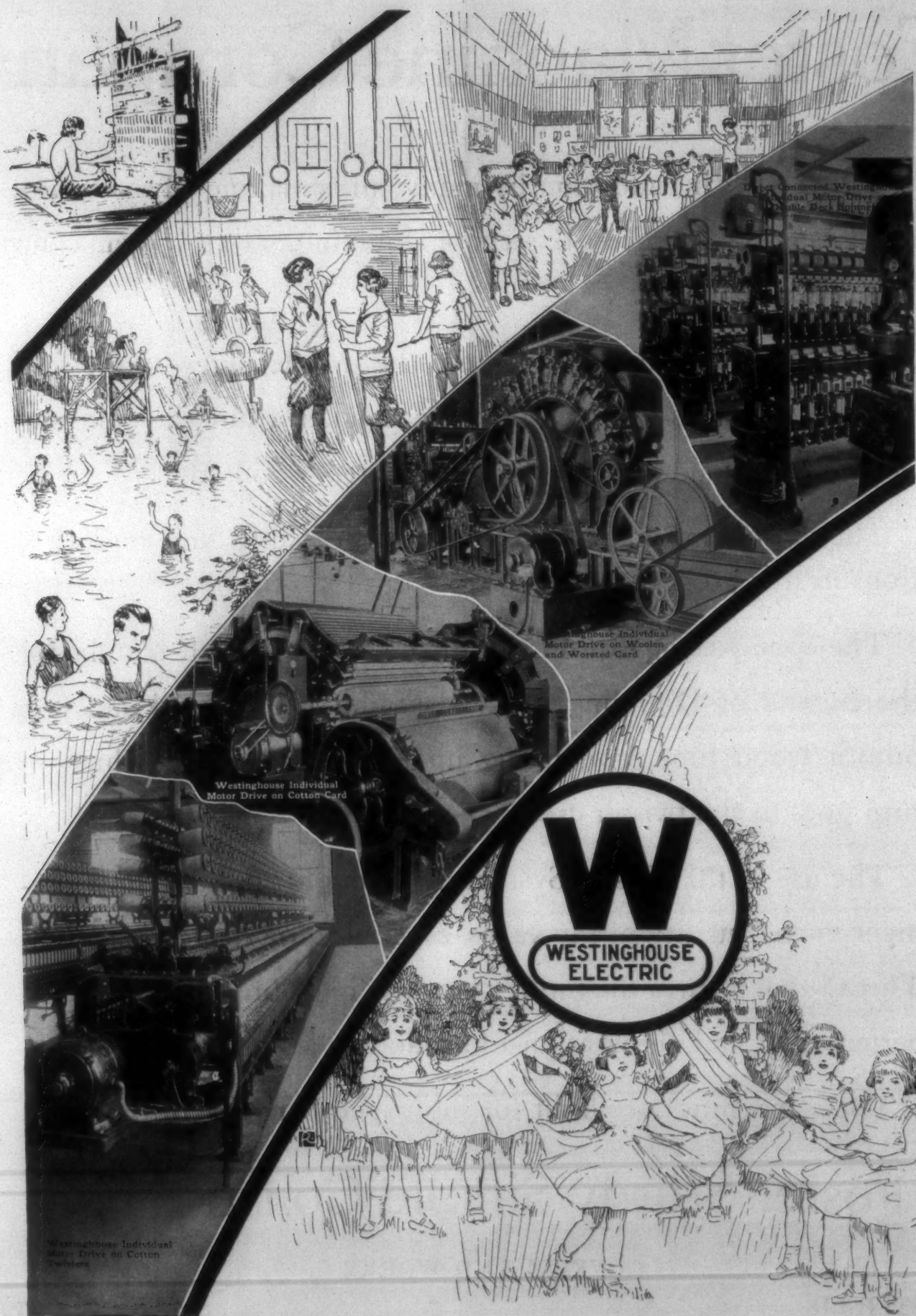
These machines are built for high speed and are of the usual

Foster Sturdy Simple Construction

OFFICE AND WORKS

WESTFIELD,

MASSACHUSETTS





Hand in Hand

Physical and Industrial Development

The splendid working and living conditions, the recreational facilities, the educational opportunities and the community welfare work which generally prevail in the textile industry, show that the humanitarian side has developed hand in hand with the great industrial advancement of the past decade.

It so happens that the means employed to increase production and to improve the quality of textile products have aided, both directly and indirectly, in bettering working conditions—in improving lighting and sanitary conditions, and in removing the danger of injury in the spinning room.

Electric drive has been the means employed and the benefits it has brought to the employer have naturally reacted to the benefit of the employee.

Starting with the development and introduction of the alternating current motor

(which made the electrification of this industry possible) Westinghouse has worked earnestly with complete electrification its ultimate goal. Step by step it has been accomplished.

The individually motor-driven silk spinner, worsted card and cotton card are the latest Westinghouse contribution; and with them the complete electrification of the textile mill has been fully realized.

In all branches, the forward movement of the industry has had the generalship of men of high ideals.

The Westinghouse organization at East Pittsburgh is constantly studying textile problems from the standpoint of both the employer and the employee.

Consultation on any electrical power problem is always welcomed.

Westinghouse Electric & Manufacturing Company
East Pittsburgh Pennsylvania
Sales Offices in All Principal Cities of the
United States and Foreign Countries

Westinghouse

HUNTER

Manufacturing & Commission Co.

58-60 Worth Street

New York City

Selling Agents For

Southern Cotton Mills

Fabrics for Home and Export

Domestic Branch Offices

Boston	Chicago	San Francisco	Philadelphia
Baltimore		St. Louis	Greensboro
Cleveland		Atlanta	Kansas City

Foreign Branch Offices

Buenos Aires, Argentina	San Juan, Porto Rico	Caracas, Venezuela
Baranquilla, Colombia	Curacao, D. W. I.	Manila, P. I.
Havana, Cuba		London, Eng.

SOLE DISTRIBUTORS

to the

JOBGING TRADE

for the

DURHAM HOSIERY MILLS

COCHECO BELTING

**The Ultimate in
Power Transmission**

COCHECO
TRADE MARK

COCHECO
BELTING

COCHECO
TRADE MARK

We do not believe that belt users are particularly interested in methods of belt manufacture; what they do want to know, is whether the belts they purchase will deliver the ultimate in power transmission.

That Cochecho Leather Belting will do this, and do it for an unusually long period is evidenced by a recent call made upon us to repair one of these belts that had been in use for 29 years.

We solicit your confidence and business on the basis of belt quality which is unexcelled and the reputation for integrity and trustworthiness our concern has enjoyed since its foundation in 1842.

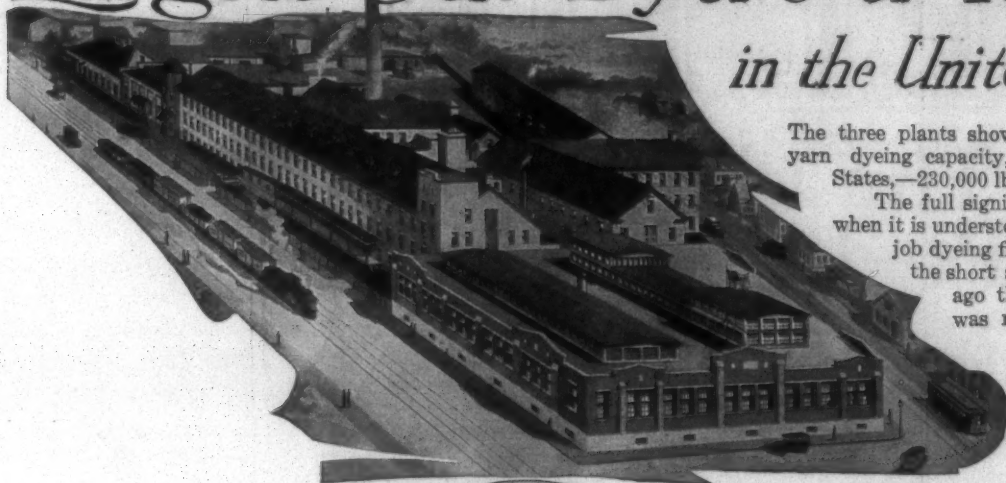
Catalog?

I. B. WILLIAMS & SONS
Dover, New Hampshire

BOSTON, MASS., 157 Summer St.
NEW YORK, N. Y., 71-73 Murray St.
CHICAGO, ILL., 14-16 N. Franklin St.

COTTON AND WORSTED YARNS

Largest Job Dyers of Yarn in the United States



The three plants shown here have a combined job yarn dyeing capacity, the largest in the United States,—230,000 lbs. per week.

The full significance of this fact is evident when it is understood that this supremacy in the job dyeing field has been attained within the short space of a decade. Ten years ago the Franklin Process Company was nothing more than a small experimental station in Providence.



The PROVIDENCE PLANT

Main Office, Job Dyeing Plant and Machinery Plant for making Franklin Dyeing Machines.

Job Dyeing Capacity—100,000 lbs. per week. Fast-to-Bleaching colors a specialty.

Dyes cotton yarn on Franklin tubes with all classes of colors.

Delivers on Franklin packages, Universal or Foster cones, Universal wound paper tubes or on jacks for cotton warps.

Also furnishes glazed yarn on 6" tubes or Wardwell or Butt braider tubes, two or three ends if desired.

Likewise dyes worsted yarn and delivers on tubes, cones or jacks.



The PHILADELPHIA PLANT

Job Dyeing Capacity—50,000 lbs. per week. Fast-to-Bleaching colors a specialty.

Dyes cotton yarns on Franklin tubes with all classes of colors.

Delivers on Franklin packages, Universal or Foster cones, or Universal wound paper tubes.

Also dyes worsted yarn and delivers on tubes.

FRANKLIN

GLAZED YARNS AND SILK NOILS

We Dye Yarn in the Wound Form
All Classes of Colors from Ordinary Direct to Best

THE FRANKLIN PROCESS eliminates skeins and long chains, thus reducing yarn waste to a negligible quantity. This also means the elimination of beamers in colored goods mills. Franklin packages are placed direct in the V creel.

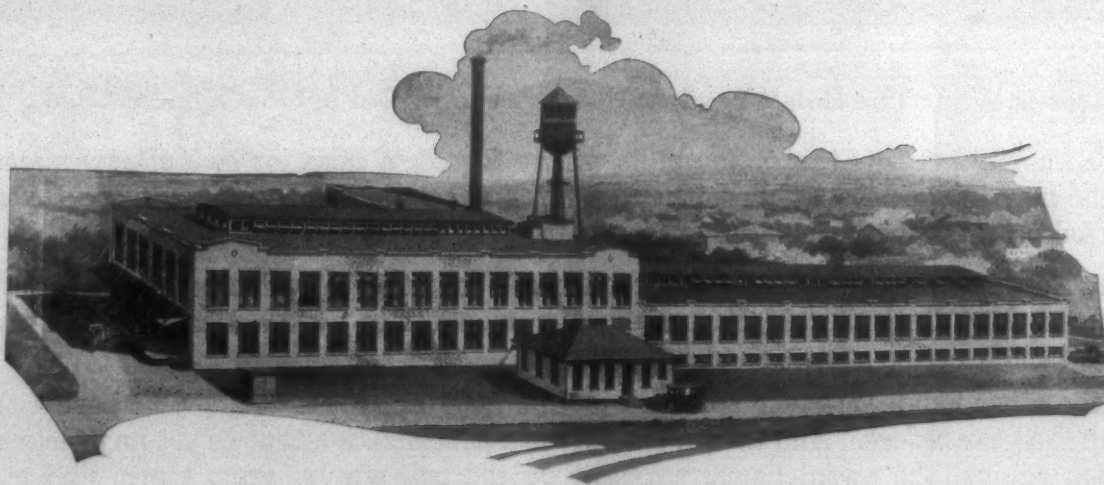
Franklin packages are dyed under pressure. Thus the liquor completely penetrates the yarn, giving unusually solid, brilliant and fast colors. In fact the excellence of Franklin colors in these respects has become practically a trademark.

Franklin dyeing means to you not only increase of economy in your mill, but also an additional strong selling point for your goods. Franklin Dyeing has become a symbol of quality to converters.

Full particulars will be furnished you on request. Write today.

FRANKLIN PROCESS CO.

Yarn Dyers Yarn Merchants Mfrs. Glazed Yarns Dyeing Machines
 PHILADELPHIA PROVIDENCE MANCHESTER, ENG.
 New York Office, 72 Leonard Street
 SOUTHERN FRANKLIN PROCESS CO.
 Greenville, S. C.



The SOUTHERN FRANKLIN PROCESS CO.
 Greenville, South Carolina

Job Dyeing Capacity — 80,000 lbs. per week. Fast-to-Bleaching colors a specialty.
 Dyes cotton yarns on Franklin packages with all classes of colors.
 Delivers on Franklin packages, Universal or Poster cones or Universal wound paper tubes.

PROCESS

Cotton Famine Inevitable!



This is What The Boll Weevil And Army Worm Did in One Typical Case

An authority predicts that many mills will be forced to close for lack of raw material before the new crop comes to market, and figures show that we will begin next year's crop period on a famine basis of American cotton for the world.

That European mills were quick to realize this condition is evidenced by the fact that from August 1 to December 21 cotton exports amounted to 3,070,944 bales, which was a gain of 364,000 over the same period last year.

On the other hand American spinners took 497,000 bales less during this period than they took the year before. And this in the face of the realization that as yet no practicable prevention against the awful havoc wrought by the boll weevil, army worm and other insects has been discovered, and the almost certain result that the South will eventually lose its supremacy in the cotton-raising world.

JACKSON, HILL & COMPANY

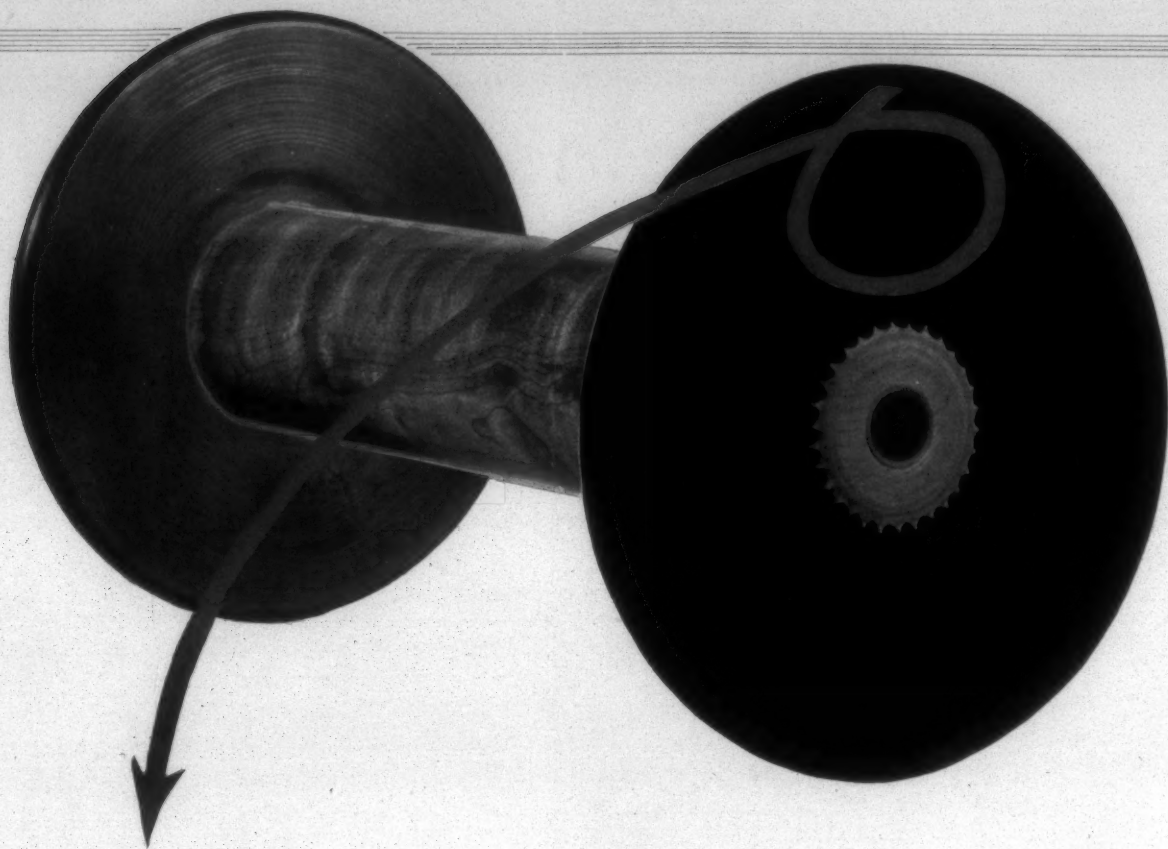
Cotton Buyers and Exporters

LITTLE ROCK, ARKANSAS

Branch Offices:

Texarkana, Hope, Pine Bluff, McGehee, Newport, Walnut Ridge, Blytheville, Arkansas, and Carruthersville, Mo.

We Solicit Business from the Carolinas for Western Growth Cotton and Arkansas Cotton in Particular
Our Business Is To Please and Satisfy



These Heads are *Vulcanized Fibre*!

They mean savings impossible with ordinary spools

No other spool has the time-defying head toughness of the

Lestershire *Vulcanized Fibre* Spool

Unconditional Guarantee

Lestershire Vulcanized Fibre Spools are guaranteed unconditionally.

—the almost incredible hardness that means many years of smooth, wasteless operation.

Troubles caused by inferior heads are eliminated through the use of Lestershire Warper or Spooler and Twister Spools. Yarn losses are stopped for Lestershire Heads never wear rough or splinter. Time of operatives is saved—the possibility of injury to employees is eliminated. Perfect balance means absence of spindle wear.

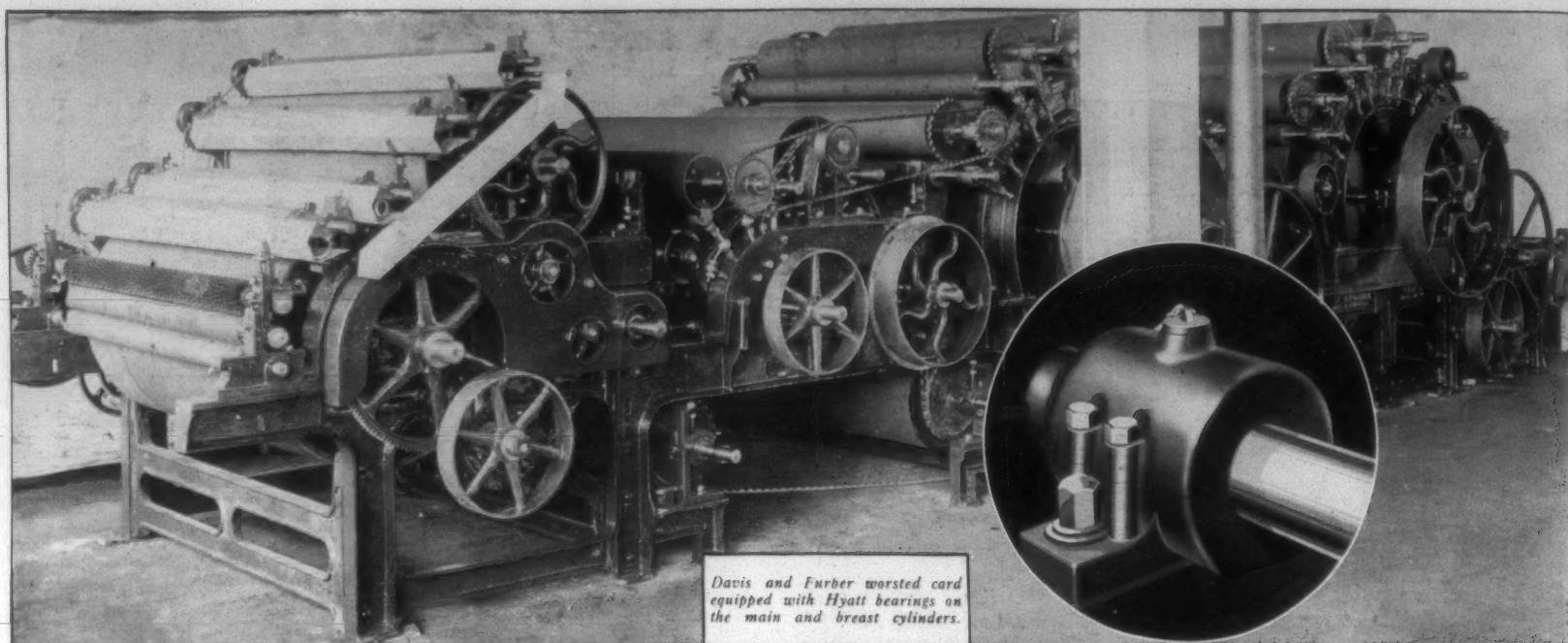
There's a neat profit in installing Lestershire Vulcanized Fibre Spools. Write for booklet which tells why.



140 Baldwin Street
Johnson City, N. Y.

Also manufacturers of high grade wooden spools of every description

Southern Office:
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*Davis and Furber worsted card
equipped with Hyatt bearings on
the main and breast cylinders.*

Easy Starting Cards are Truly Economical

To overcome the high starting resistance of old-fashioned plain bearing worsted cards requires larger motors than are necessary to keep them running. When the cards are running the larger motors use power less economically than if they were the proper size.

A card equipped with Hyatt roller bearings, however, begins to turn the moment power is applied and requires little more power for starting than for running. Therefore smaller motors can be used and the power saved plus the reduced cost of the motor, soon pays for the additional cost of the bearings.

Added to this worth-while power saving is the durability of the bearings which enables them to operate for years without replacement or adjustment and they require lubrication only 3 or 4 times a year.

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Cleveland Pittsburgh Buffalo Indianapolis

SOUTHERN TEXTILE BULLETIN

PUBLISHED EVERY THURSDAY BY CLARK PUBLISHING COMPANY, 39-41 S. CHURCH STREET, CHARLOTTE, N. C. SUBSCRIPTION \$2.00 PER YEAR IN ADVANCE. ENTERED AS SECOND CLASS MAIL MATTER MARCH 2, 1911, AT POSTOFFICE, CHARLOTTE, N. C., UNDER ACT OF CONGRESS, MAR. 3, 1879.

VOLUME 25

CHARLOTTE, N. C., THURSDAY, JANUARY 31, 1923

NUMBER 23

Clark's Annual Spindle Increase List

A total of 730,812 spindles were installed by Southern cotton mills during the year 1923. The following list gives the name and location of each mill that increased the number of its spindles, together with the total by States and the total for the South. This information is compiled from data from Clark's Directory of Southern Textile Mills. Figures are as of January 1, 1924.

Name of Mill—	Alabama	Spindles	Name of Mill—	Spindles
Avondale Mills, Alexander City	26,928		Dudley Shoals Cotton Mills, Granite Falls	880
Bettie Francis Cotton Mills, Alexander City	456		Holt-Granite-Puritan Mills, Haw River	1,002
Roberta Mill, Alexander City	456		Highland Cotton Mills, High Point	7,240
Russco Mills, Alexander City	456		*Millis Cotton Mills, High Point	6,240
*Russcony Mills, Alexander City	2,448		Eno Cotton Mills, Hillsboro	6,272
Am. Net & Twine Co., Anniston	1,300		Cabarrus Cotton Mills, Kannapolis	15,000
*Kilby Cotton Mills, Montgomery	10,320		Mason Cotton Mills, Kings Mountain	4,080
*Nicolas Cotton Mills, Opp	7,200		*Wabenh Cotton Mill, Lexington	1,000
Alabama Textile Mills, Selma	1,608		*Melville Mfg. Co. No. 2, Lincolnton	6,900
Avondale Mills, Sycamore	20,160		*Rhodes-Rhyne Mfg. Co., Lincolnton	3,000
New Canebroke Cotton Mills, Uniontown	208		Long Island Cotton Mill, Long Island	256
Total	71,540		Cascade Mills, Mooresville	3,576
			Mooresville Cotton Mills, Mooresville	17,000
			United Mills Co., Mortimer	1,300
			Norwood Mfg. Co., Norwood	4,540
			*Oakboro Cotton Mills, Oakboro	6,048
			Chadwick-Hoskins Co., Pineville	756
			*Ragan Spinning Co., Ragan <i>H. W. Ragan, Pres.; C. Ragan, Secy</i>	10,000
			Caraleigh Mills Co., Raleigh	2,048
			*Priscilla Spinning Co., Ranlo	15,000
			A. M. Smyre Mfg. Co., Ranlo	15,064
			Rosemary Mfg. Co., Roanoke Rapids	3,052
			Entwistle Mfg. Co., Rockingham	19,240
			Ledbetter Mfg. Co., Rockingham	1,000
			Roberdel Mfg. Co., Rockingham	11,300
			Roxboro Cotton Mills, Roxboro	6,000
			Rowan Cotton Mills, Salisbury	1,008
			Vance Cotton Mills, Salisbury	1,008
			Sanford Cotton Mills, Sanford	1,920
			*Dover Mill Co., Shelby	11,500
			Lily Mill & Power Co., Shelby	950
			Watts Spinning Co., Stony Point	4,000
			Ernaldson Cotton Mill, St. Paul	3,000
			Virginia Cotton Mills, Swepsonville	480
			Fountain Cotton Mills, Tarboro	1,000
			Miller Mfg. Co., Taylorsville	2,720
			*North State Cotton Mill, Taylorsville	5,090
			Smitherman Cotton Mills, Troy	4,784
			Valdese Mfg. Co., Valdese	3,000
			*Wade Mfg. Co., Wadesboro	13,600
			Wadesboro Cotton Mills, Wadesboro	236
			*Nelson Cotton Mill, Whitnel	6,048
			Delgado Mills, Wilmington	5,694
			Total	421,068
			Oklahoma	
			Sand Springs Cotton Mill, Sand Springs	10,000
			Total	10,000
			South Carolina	
			Blair Cotton Mills, Belton	416
			Broad River Mills, Blacksburg	720
			Calhoun Mills, Calhoun Falls	15,360
			Henrietta Mills, Cherokee Falls	3,012
			Clinton Cotton Mills, Clinton	1,344
			Lydia Cotton Mills, Clinton	2,500
			*Hampshire Spinning Co.	20,000
			Alma Mills, Gaffney	10,000
			Irene Mills, Gaffney	2,684
			Musgrove Cotton Mills, Gaffney	5,000
			Greenwood Cotton Mills, Greenwood	3,496

*Indicates new mill.

(Continued on Next Page)

Clark's Annual Spindle Increase List

(Continued from Preceding Page)

Name of Mill—	Spindles	Name of Mill—	Spindles
Mills Mill, Greenville	4,584	Statesville Cotton Mills, Statesville	2,800
Hartsville Cotton Mills, Hartsville	2,216	Watts Spinning Co., Stony Point	4,000
Wallace Mfg. Co., Jonesville	416	Amazon Cotton Mills, Thomasville	8,000
Manetta Mills, Lando	2,000	Leward Cotton Mills, Worthville	4,592
Pelham Mills, Pelham	780		
Jackson Mills No. 2, Wellford	6,500		
Total	81,028	Total	230,364
Tennessee		Oklahoma	
*Dixie Spinning Co., Chattanooga	12,096	Tulsa Cotton Mills, Tulsa	5,000
Eureka Cotton Mills, Englewood	188	Total	5,000
Elk Cotton Mills, Fayetteville	5,000	South Carolina	
Rockford Mfg. Co., Rockford	2,000	Arcadia Mills, Arcadia	9,984
Total	19,284	*Cash Mfg. Co., Blacksburg	5,000
Texas		*Pacific Mills, Lyman	32,000
Corsicana Cotton Mills, Corsicana	1,000	New England-Southern Mills, Tucapau	15,000
Dallas Cotton Mills, Dallas	3,500	Total	61,964
*Houston Cotton & Twine Mills, Houston	2,080	Texas	
Itasca Cotton Mfg. Co., Itasca	4,800	Dallas Textile Mills, Dallas	12,000
*Planters & Merchants Mill, New Braunfels	10,000	El Paso Cotton Mills, El Paso	5,000
Postex Cotton Mills, Post City	1,460	Total	17,000
Waco Twine Mills, Waco	2,080	Summary By States	
Total	24,920	Alabama	20,280
Virginia		Georgia	106,948
Alta Vista Cotton Mills, Alta Vista	13,114	North Carolina	230,364
Riverside & Dan River Cotton Mills, Danville	16,128	Oklahoma	5,000
Washington Mills Co., Fries	10,856	South Carolina	61,964
Total	40,098	Texas	17,000
Summary by States		Total under construction	441,556
Alabama	71,540	*Indicates new mill.	
Georgia	62,874	Southern Yarn Mercerizing Plants	
North Carolina	421,068	The growth of the yarn mercerizing business promises to be rapid in the future. The following are the present Southern yarn mercerizing plants:	
Oklahoma	10,000	American Yarn & Processing Co.	Mt. Holly, N. C.
South Carolina	81,028	Lily Mill & Power Co.	Shelby, N. C.
Tennessee	19,284	Elmore Co.	Spindale, N. C.
Texas	24,920	Spinners Processing Co.	Spindale, N. C.
Virginia	40,098	Southern Mercerizing Co.	Tryon, N. C.
Total spindles installed 1923	730,812	Marlboro Mills	McColl, S. C.
		Excelsior Mills	Union, S. C.
		Dixie Mercerizing Co.	Chattanooga, Tenn.
		Standard-Coosa-Thatcher Co.	Chattanooga, Tenn.

Spindles Under Construction

The following list shows, by States, the spindles now under construction in the South:

Alabama	
*Geneva Cotton Mills, Geneva	5,280
Lincoln Mill, Huntsville	15,000
Total	20,280
Georgia	
Dunson Mills, LaGrange	10,080
Fulton Bag & Cotton Mills, Atlanta	20,000
*American Thread Co., Dalton	30,000
Stark Mills (New England-Southern), Hogansville	35,568
Juliette Milling Co., Juliette	1,600
Summerville Cotton Mills, Summerville	4,000
Walton Cotton Mills, Monroe	5,700
Total	106,948
North Carolina	
*Balfour Cotton Mills, Balfour	10,000
*Eagle Yarn Mills, Belmont	12,672
*Stowe Spinning Co., Belmont	21,700
American Cotton Mills, Bessemer City	4,800
Erwin Cotton Mills No. 2, Duke	36,000
White Oak Cotton Mills, Greensboro	30,000
*County Moore Mills, Inc., Hemp	5,000
*Caldwell Cotton Mills, Hudson	6,000
Dacotah Cotton Mills, Lexington	25,000
Mooresville Cotton Mills, Mooresville	20,000
Hannah Pickett Mills, Rockingham	20,000
*Leak Mfg. Co., Rockingham	15,000
Lola Mfg. Co., Stanley	5,000

*Indicates new mill.

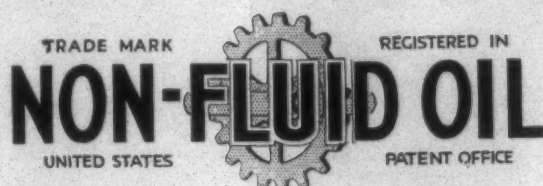
Southern Piece Goods Bleacheries

The bleaching and finishing of cotton goods is developing very rapidly in the South. We give below a list of the Southern piece goods bleacheries, including those recently projected:

Lanett Bleachery and Dye Works	Lanett, Ala.
U. S. Finishing Co.	Cedartown, Ga.
Crystal Springs Bleachery Co.	Chickamauga, Ga.
Yates Bleachery	Flintstone, Ga.
Georgia Cotton Mills	Griffin, Ga.
Lowell Bleachery, South	Griffin, Ga.
Thomaston Cotton Mills	Thomaston, Ga.
Lowell Bleachery	St. Louis, Mo.
Martel Mills	Asheville, N. C.
*Sayles Finishing Works	Asheville, N. C.
Savona Mfg. Co.	Charlotte, N. C.
Kerr Bleaching & Finishing Works	Concord, N. C.
Erwin Cotton Mills	Durham, N. C.
Proximity Print Works	Greensboro, N. C.
Cannon Mfg. Co.	Kannapolis, N. C.
Mooresville Cotton Mills	Mooresville, N. C.
*Joseph Bancroft & Sons Co.	Old Fort, N. C.
Roanoke Mills Co.	Roanoke Rapids, N. C.
Carolina Cotton & Woolen Mills	Spray, N. C.
North State Finishing Co.	Yadkin, N. C.
Brogan Mills	Anderson, S. C.
Union Bleachery	Greenville, S. C.
Pacific Mills	Lyman, S. C.
Southern Bleachery	Taylors, S. C.
Ware Shoals Mfg. Co.	Ware Shoals, S. C.
Postex Cotton Mills	Post City, Tex.
Riverside & Dan River Cotton Mills	Danville, Va.

*Indicates plant recently projected.

Each Year sees Steady Increase in the use of



The Modern Textile Lubricant

Lubricates better, Lasts longer, Costs less per month

Neither fair nor unfair competition can keep the best product down. In spite of the efforts of other Lubricant manufacturers to supplant NON-FLUID OIL in Textile Mills—NON-FLUID OIL has steadily increased its popularity among Mill Men.

And the popularity of NON-FLUID OIL has been founded entirely upon merit—we have always told simply and clearly what NON-FLUID OIL would do—we have told why NON-FLUID OIL gave better lubrication on textile machinery at less cost per month—and we have explained that NON-FLUID OIL saves good cotton from oil stains because it won't drip, spatter or creep.

Mill Men who have tried NON-FLUID OIL have found that it does just what we say. In this way NON-FLUID OIL has made for itself many friends during the past quarter of a century and they in turn have helped perfect NON-FLUID OIL by valuable advice and recommendations. So today NON-FLUID OIL is used in the great majority of mills in every part of the country.

If you are one of the few not now using NON-FLUID OIL send in coupon for free sample and Bulletin, "Lubrication of Textile Machinery."

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Corn Products Refining Co.
NEW YORK

Southern Office: Greenville, S. C.

Starch

Clark's Annual Knitting Machine Increase List

A total of 3,846 additional knitting machines were installed in Southern knitting mills during the year 1923. The following list gives the name and location of each mill that increased its knitting equipment, together with the total by States and the total for the South. This information is compiled from data from Clark's Directory of Southern Textile Mills:

Name of Mill—	Knitting Machines
Alabama	
Anniston Knitting Mills, Anniston	72
*Ashland Knitting Mills, Ashland	49
*Wells Knitting Co., Decatur	30
*Scottsboro Hosiery Mill, Scottsboro	30
Total	181
Georgia	
*Albany Hosiery Mills, Albany	103
Cartersville Mills, Inc., Cartersville	2
Dallas Hosiery Mills, Dallas	40
Forsyth Hosiery Mills, Forsyth	17
Griffin Hosiery Mills, Griffin	41
Spalding Knitting Mills, Griffin	58
Marietta Knitting Co., Marietta	50
*Chester Knitting Mill, Rome	100
Total	411
Kentucky	
Paducah Hosiery Mills, Inc., Paducah	18
Priester Mills, Paducah	52
Princeton Hosiery Mills, Princeton	40
Total	110
Louisiana	
Alden Mills, New Orleans	50
Floradel Knitting Mills, New Orleans	22
Total	72
Mississippi	
Alden Mills, Meridian	100
Total	100
North Carolina	
Acme Hosiery Mills, Inc., Asheboro	64
Asheville Knitting Mills, Asheville	82
Graham Hosiery Mills, Burlington	22
Love Knitting Mills, Burlington	11
*Mohan Hosiery Mills, Inc., Burlington	38
Charlotte Knitting Co., Charlotte	40
*Nebel Knitting Co., Charlotte	8
*Concord Knitting Co., Concord	86
Hoover Hosiery Mills, Concord	9
Elizabeth City Hosiery Mills, Elizabeth City	36
Pasquotank Hosiery Co., Elizabeth City	20
Ellerbe Knitting Mills, Ellerbe	50
Gibsonville Hosiery Co., Gibsonville	19
Grey Hosiery Mills, Hendersonville	35
Best Hosiery Mills, Inc., Hickory	15
Elliott Knitting Mills, Inc., Hickory	50
*Hickory Lace Braiding Co., Hickory	210
*Real Knitting Mills, Hickory	30
Amos Hosiery Mills, High Point	38
Crown Hosiery Mills, High Point	5
*E. & S. Hosiery Mills, High Point	30
Guilford Hosiery Mills, High Point	18
Harriss & Covington Hosiery Mills, High Point	80
*Pointer Hosiery Mills, High Point	50
Icard Cordage Co., Icard	138
McDowell Hosiery Mills, Marion	10
Renfro Hosiery Mills, Mt. Airy	59
*Oak Lane Knitting Mills, Inc., Murphy	66
*Cartex Underwear Co., Reidsville	34
Janet Hosiery Mills, Shelby	50
Staley Hosiery Mills, Staley	10
Queen Knitting Mills, Statesville	6
Tryon Hosiery Mfg. Co., Tryon	55
*Berry Hosiery Mills, Valdese	25
Total	1,516

*Indicates new mills.

(Continued on Page 26)

HOUGHTON

PENETRATION

THERE is much difference between the power possessed by various liquids to penetrate solids.

As an illustration; accurately measure a drop of one liquid and a drop of another. Place each drop upon a piece of paper of the same quality, and see to it that the paper lies perfectly level. It is thoroughly possible for one of these liquids to spread itself over an area several times larger than that over which the other will spread itself. While the test thus described is one of common practice it is not necessarily a certain test for penetration, for it may be possible that the paper used contains more or less of a filler or gloss and that property which permits a liquid to spread itself over the largest non-porous area is not necessarily the property which permits it to penetrate interiors, although there is some relation between the properties.

Let us take the process of decolorization of oils by filtration. In this process the oil is passed through columns of filtering material, usually Fuller's Earth or bone-black. That oil which penetrates best filters the easiest and with the least cost. But such an oil would cut a sorry figure if used in a textile softener, because it also parts very readily with its coloring matter which is fine carbon pigment in mineral oil and blood pigment in animal oils.

An easy filtering oil possesses the power to penetrate in itself, but it does not possess the power to carry anything with it in penetrating action.

The tendency of the yarn is to filter or strain, from the liquids mixed with the size, the solid ingredients in the size and leave them deposited on the surface. This is what causes all of the trouble in the conditioning process. It causes the warp to become brittle or pipy and break on the beam, and is the cause of not carrying the size through to the cloth.

The imparting to an oil the property of penetration is not a problem which is identical to the manufacture of a conditioner, for cotton goods, but enters more or less into all of the industries.

All case-hardened metal must be penetrated by carbon gases; wool must be penetrated by an oil in preparing it for the cards; leather must be penetrated by an oil in the currying process; silk must be penetrated by an oil or soap in the process of conditioning. But each of these processes of penetration carry with them some peculiar requirement identical to itself and to no other.

For instance with the preparation of wool, the oil must be a ready solvent for the natural greases of the wool, a corrector of electricity and scour readily. With leather the oil must penetrate into every crevice of the hide, lubricating the fibres and carrying with it a certain amount of solid matter such as stearine. Products which are in themselves oils at certain temperatures and which are readily soluble in oil in certain proportions.

But when it comes to conditioning cotton warps, the conditioner must carry through to the interior of the yarn, in a uniform manner, the starch, etc., which compose the size. It must not release the size by a filtration process and permit it to remain on the surface, neither should it release the size and permit it to ooze to the surface of the warp when the warp is under the tensile strength to which it is subjected on the loom.

Thus it may be comprehended that in a Warp Conditioner property of penetration plus the property of dissolving the size are desirable characteristics. And we might appropriately add, plus the property of staying put.

Thus it will be appreciated that the manufacture of oleagenous products for one industry is more or less related to the manufacture of those products for all industries and HOUGHTON'S WARP CONDITIONER is the final result of many years' experience in the manufacture of oils possessing soluble and penetrating proportions.

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Oils and Leathers for the Textile Industry

Southern Cotton Mill Groups

This list arranges according to size of the groups of mills over 50,000 spindles, including mills or additions under construction. We have grouped the mills that are under each management. We have also included single mills of 50,000 or more spindles where such mills do not belong to groups.

	Spindles		
1.—Cannon Group, Cannon, Cabarrus, Franklin, Gibson, Kesler, Barringer, Tuscarora, Patterson, Efrd, Wiscasset, Amazon, Buck Creek, Imperial, Social Circle, Bloomfield, Paola, Davidson, and Dallas Textile	656,052	18.—Phinizz Group, Augusta, Sibley, Graniteville, and Warren	172,072
2.—Lockwood, Greene & Co. Group, Pacific, New England-Southern, and Winnsboro	583,904	19.—Emslie Nicholson Group, Monarch (2 mills), and Excelsior	171,062
3.—Riverside and Dan River Cotton Mills	467,440	20.—Aug. W. Smith Group, Brandon, Poinsett and Woodruff	165,508
4.—J. P. & B. B. Gossett Group, Chadwick-Hoskins, Martinsville, Riverside, Toxaway, Brogon, Pelham, Calhoun Falls, and Williamston	302,388	21.—Tanner Group, Henrietta, Spindale, Spencer, Cleghorn, Clover, Roseland and Grace	161,778
5.—Erwin Group, Erwin, Durham, Pearl, Oxford, Locke, and Alpine	280,600	22.—Manville-Jenckes Company	158,542
6.—B. B. Comer Group, Avondale (8 mills), and Cowikee	261,268	23.—C. W. Johnston Group, Highland Park, Anchor, Johnston, Cornelius, Brown, Norcott, Jewell, Eastern, Park Yarn, and Belton	155,444
7.—Bibb Manufacturing Company	251,656	24.—Carolina Cotton and Woolen Mills	141,086
8.—Cone Group, Proximity, White Oak, Revolution, Minneola, Asheville, and Salisbury	247,242	25.—Ben D. Riegel Group, Ware Shoals and Trion	131,160
9.—Lineberger-Stowe Group, Acme, Chronicle, Climax, Crescent, Imperial, Majestic, National, Sterling, Eagle, Linford, Perfection, Stowe, Rowan, Superior, and Vance	236,312	26.—W. S. Montgomery Group, Spartan and Laurens	129,832
10.—Leroy Springs Group, Lancaster, Kershaw, Fort Mill, Springstein, and Eureka	234,080	27.—Separk-Gray Group, Arlington, Flint, Gray, Myrtle, Parkdale, and Arrow	129,604
11.—Woodside Group, Woodside and Easley	227,928	28.—Fulton Bag and Cotton Mills, Atlanta, Ga.	120,000
12.—Geo. H. Lanier Group, Lanett, Fairfax, West Point, Riverdale, Shawmut, and Anchor	212,412	29.—Bahnsen Group, Washington and Arista	119,196
13.—Consolidated Textile Corporation Group	196,194	30.—Standard-Coosa-Thatcher Company	117,968
14.—F. E. Whitman Group, Union-Buffalo, Santee (2 mills), and Fairmont	195,104	31.—Hightower Group, Thomaston, Peerless, and Aldora	115,874
15.—Victor-Monaghan Company	183,296	32.—Robinson-Rankin Group, Lowell, Peerless, Avon, Dorothy, Elizabeth, Atherton, Robinson, Aileen, Eureka, and Wampum	109,860
16.—Victor Montgomery Group, Pacolet and Gainesville	178,930	33.—Merrimack Manufacturing Company	108,288
17.—W. H. Langley Group, Aiken, Langley, Seminole, and Anderson	174,048	34.—Standard Textile Products Group, Mobile (3 mills), and Meritas	105,852
		35.—Calloway Group, Elm City, Hillside, Valley Waste, Unity, Manchester, and Milstead	103,348
		36.—J. D. Hammett Group, Orr and Chiquola	103,280
		37.—Massachusetts Cotton Mills, Lindale, Ga.	102,016
		38.—S. P. Cooper Group, Harriett and Henderson	101,184
		39.—Alfred Moore Group, Gaffney and Jackson	100,788
		40.—S. F. Patterson Group, Roanoke and Rosemary	100,552
		41.—Armstrong Group, Armstrong, Clara, Dunn, Mutual, Piedmont, Seminole, Victory, Winget, Monarch, Helen, Wymojo, and Lockmore	100,444

(Continued on Page 43)



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The New Brandon Mills Duck Plant

THE new mill built by the Brandon Mills, Inc., at Greenville, S. C., is equipped for the manufacture of duck ranging in weight from No. 12 to 12/0 and in width from 12 to 192 inches.

The product is used as paper mill felts, sail duck, hose and felt duck, canvas duck and conveyor belting duck.

The machinery equipment includes 5,712 ring spindles, 1,324 twister spindles and 46 looms which vary in size from 32 to 208 inches.

The plans and specifications for the entire plant as well as the supervision of the construction and equipment was the work of this organization of Engineers.

Foresight rounded out by an experience of nearly a quarter-century has enabled us to build up an organization competent to assist nearly every branch of industry.

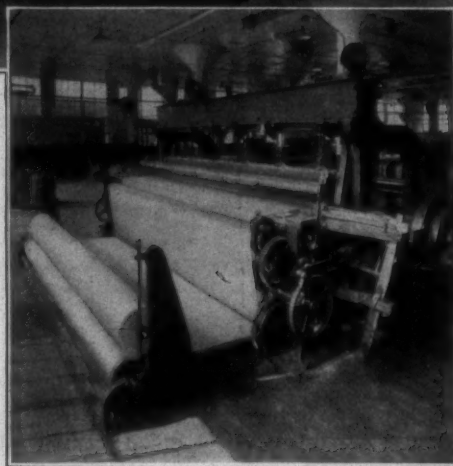
A member of this organization will confer with you, without obligation, to discuss your present and future plans. Your request for the appointment will receive prompt attention.

J. E. SIRRINE & COMPANY

Engineers

Greenville

South Carolina



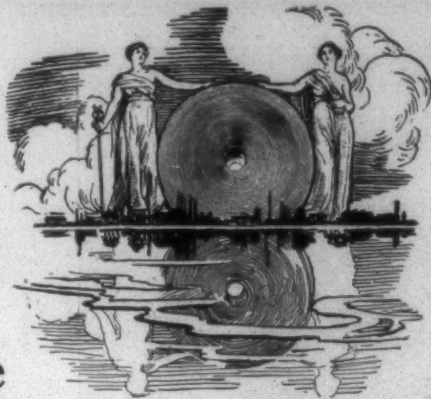
Card room in Brandon Mills Duck Plant, Greenville, S. C., and one of the 208-inch looms.

Write

for the new editions of "Picks to the Minute"—a short discussion of the textile industry—and "Factories for the Future."



Nothing takes the place of Leather
Nothing takes the place of Leather
Nothing takes the place of Leather



The New Idea In Transmission Belting *Pre-tested* Leather Belting

When you buy Chicago Belting pre-tested leather belts you buy belts that are made according to scientific production methods in which practically every inch of leather has been pre-tested and inspected in our factory. We have carried far the scientific production of leather belting and have standardized each of the qualities we make under our brand names, Reliance, Sea Lion (waterproof), and White strip (stretchless).

All of our belting carries minimum guarantees as to tensile strength, grease content, permanent and temporary stretch, elasticity, piping, adhesion to the pulley, straightness of running, etc., which provide the buyer with a definite and dependable check on leather belting quality.

This makes it possible for the buyer to place his belting purchases on a more scientific basis than has heretofore been possible. A full description of this new method of buying and its significance will be sent to all users of belting who are interested in keeping up with the most advanced ideas regarding the economic use of transmission belting.

Chicago *Leather* Belting

Chicago Belting Company

Manufacturers of Leather Belting
129 NORTH GREEN STREET
CHICAGO, U.S.A.

TEAR OFF HERE

Chicago Belting Company,
129 North Green Street, Chicago.

Please send me without charge or obligation an account of
your pre-tested methods of belt buying and belt making.

Firm _____

Address _____

Att'n of _____

CLARK'S ANNUAL KNITTING MACHINE INCREASE LIST

(Continued from Page 22)

South Carolina	
Appalache Mills, Landrum	100
Liberty Hosiery Mills, Rock Hill	10
Star Hosiery Mills, Spartanburg	25
Total	135
Tennessee	
Athens Hosiery Mills, Athens	29
Browning Hosiery Mill, Chattanooga	49
*McAllester Hosiery Mills, Chattanooga	90
Mountain City Knitting Mills, Chattanooga	26
Signal Knitting Mills, Chattanooga	10
*Smith Hosiery Mills, Chattanooga	58
*Watkins Hosiery Mills, Chattanooga	25
Magnet Knitting Mills, Clinton	13
Englewood Mfg. Co., Englewood	6
Richmond Hosiery Mills, Etowah	75
*Priester Mills, Jackson	175
*Taubel-Scott Co., Jefferson City	50
Appalachian Mills Co., Knoxville	15
B. & W. Knitting Mills, Knoxville	8
Holston Mfg. Co., Knoxville	50
Silk Tie Knitting Co., Knoxville	13
Standard Knitting Mills, Knoxville	4
*Hughes Knitting Mill, Lenoir City	25
*Read Hosiery Mill, Manchester	25
Ideal Hosiery Mills, Maryville	19
Richmond Hosiery Mills, Melville	25
Davis-Hale-Ransom Co., Nashville	20
Newport Knitting Mill, Newport	18
Philadelphia Hosiery Mill, Philadelphia	3
Aycock Hosiery Mills, South Pittsburg	20
Aycock Hosiery Mills, Whitwell	14
Total	865
Texas	
Texas Hosiery Mills, Dallas	150
Fatueh & Nogaim Hosiery Mills, El Paso	30
*Ellis County Hosiery Mills, Waxahachie	30
Total	184
Virginia	
Tenneva Hosiery Mills, Bristol	86
Lynchburg Hosiery Mills, Lynchburg	50
*Jones Knitting Mill, Norfolk	24
Paul Knitting Mill, Pulaski	100
Paul Knitting Mill, Radford	12
Total	272
Summary By States	
Alabama	181
Georgia	411
Kentucky	110
Louisiana	72
Mississippi	100
North Carolina	1,516
South Carolina	135
Tennessee	865
Texas	184
Virginia	272
Total knitting machines installed in 1923	3,846

*Indicates new mills.

CAPITAL STOCK OF SOUTHERN MILLS

The capital stock of Textile Corporations which reported their capital is as follows:

Alabama	\$ 28,363,250
Arkansas	115,000
Georgia	74,497,130
Kentucky	1,755,000
Louisiana	5,405,000
Mississippi	3,310,000
Missouri	35,000
North Carolina	194,855,374
Oklahoma	750,000
South Carolina	131,505,672
Tennessee	25,648,475
Texas	11,147,000
Virginia	22,099,500

Total capital reported \$499,486,401

On account of the fact that many mills do not report their capital, the total figure is considerably less than the total actually invested in Southern mills.

1848

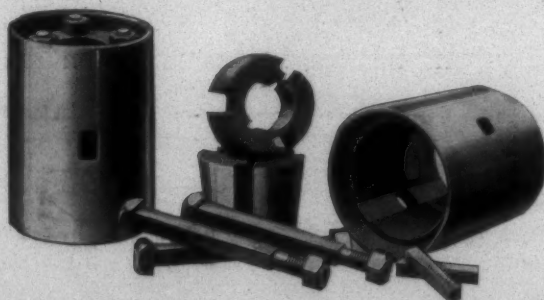
SELLERS

1924

Power Transmission Equipment



Photograph of an approved Transmission Equipment under a weave room in an important New England Mill. Total friction load in this plant including engine and loose pulley on machines was less than 11 per cent. I-Beam clamps to attach hangers to beams. True Ball and Socket Hangers. Ring Oiling Cast Iron Boxes. Turned Steel Shafts. Double Cone Vise Couplings.



"Sellers" Cone Vise Coupling

Equals the strength and accuracy of fitted and faced flange couplings. Superior to all types of compression couplings for transmitting power. Convenient to install either straight or reducing. All sizes shipped from stock.

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GREENVILLE, S. C.
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New England Office:
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Glenlyon Dye Works

Glenlyon Print Works

Glenlyon Yarn Dye Works

Glenlyon Yarn Dye Works

Saylesville, R. I.

Saylesville, R. I.

Phillipsdale, R. I.

Phillipsdale, R. I.

Central Falls, R. I.

Plant A

Plant B

Plant C

Plant E

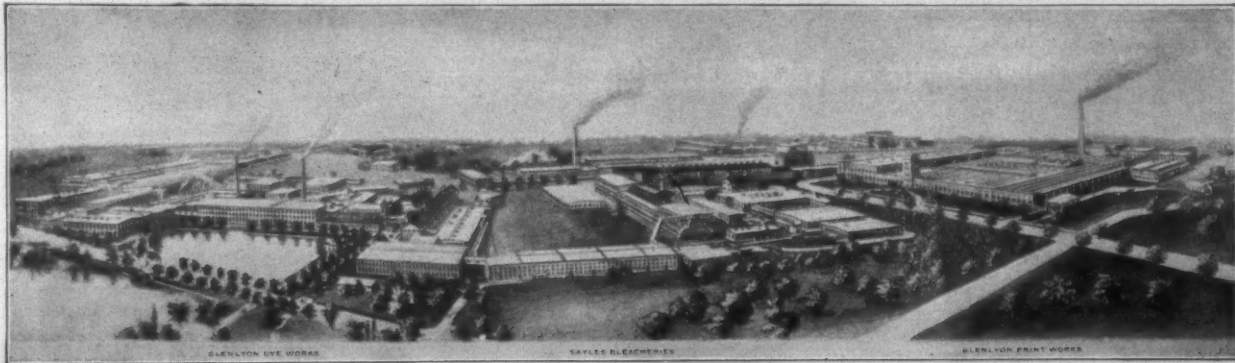
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Permanent Finish Applied on Large Variety of Fabrics.



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Mercerizers, Dyers and Finishers of Cotton Piece Goods. Colors Fast to Light and Washing a Specialty.

Flock Printing done by the "Glenlyon Process."

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SAYLESVILLE, R. I.



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TWO UNIQUE DYESTUFF DEVELOPMENTS

Pontamine Diazo Brown 6G

*A bright developed brown particularly suitable
for the production of fast shades of "rust brown"*

When developed on cotton with beta-naphthol, this dyestuff supplies a much desired shade in diazotizable colors. Its general fastness properties are very good, while its resistance to washing and light is quite superior to that shown by direct colors producing similar shades.

Pontamine Blue GH Conc.

*A highly concentrated, direct blue, of
medium shade*

This dyestuff can be used on all types of dyeing machines, due to its excellent penetration, level dyeing qualities and a complete, uniform exhaustion. Pontamine Blue GH Conc. can be applied at the boil on union goods, the vegetable fibres being more heavily dyed than the animal fibres. Cotton can be dyed readily in a cold bath, making this dyestuff useful in speck dyeing.

E. I. DU PONT DE NEMOURS & CO., Inc.

Dyestuffs Department

Wilmington, Delaware

STANDARD-UNIFORM

Visiting the Textile Machinery Shops

BY DAVID CLARK

(Continued from last week)

Whitin Machine Works.

LEAVING Boston on an early train Friday morning, January 11, I spent about an hour at Blackstone, where I had to change trains, and reached Whitinsville about 9:30 o'clock. From Whitins I went by trolley to Whitinsville, which is owned almost entirely by the Whitin Machine Works.

I had the bad luck to find that Kent Swift, the treasurer, had just left for Boston. About twenty years ago, Kent lived at Charlotte, for a year or more, and I always enjoy seeing him.

However, Lawrence Keeler, the secretary, was present and did all possible to make my stay pleasant.

After a short talk with Mr. Keeler and John McGinn, of their organization, they sent for M. F. Carpenter, who is editor of the *Whitin Spindle*, a very creditable monthly publication of the Whitin Machine Works, and he undertook the job of showing me over a portion of the shops. As they have more than 40 acres of floor space, I notified them in advance that I was not going to attempt to wear out my shoes seeing everything.

The Whitin Machine Works have recently begun the manufacture of opening and picking machinery and now build complete cotton mill units with the exception of warpers, slashers and looms. They still furnish repairs for the looms they formerly manufactured and build dobby heads but do not accept new orders for looms.

In going to the office of Mr. Carpenter I noticed a number of boys in a class room and found that they run an apprentice school. Boys who enter the shops at 16 years of age spend half of their time in the shops and half in the school room. The Whitin Machine Works pay them for the hours spent in the school room at the same rate as for the time in the shops.

They consider that the expenditure is well worth while, as it gives them a supply of better educated employees.

While in the office of Mr. Carpenter I met Mr. Norton, who has charge of the employment department, and was told that every man who enters the employment of the Whitin Machine Works has to undergo a physical examination.

As it was very near the noon hour Mr. Carpenter suggested that I visit the George Marsden Memorial Building and leave the shops visit until the afternoon.

The Memorial Building is a beautiful building erected by the four daughters of the late Mr. George Marsden Whitin, for the benefit and pleasure of the employees of the Whitin Machine Works.

It has everything in it that could add to the pleasure of the people, even to a shooting gallery.

The swimming pool is 60 feet long, made of white and colored tile, and is the prettiest pool I have ever seen. There were, of course, a

library, gymnasium, reading rooms, etc., and everything was of the very best that could be installed.

Returning to the office, Lawrence Keeler took me to his home for dinner, and Ernest Clary, of his office, went with us. Mrs. Keeler was in Boston, but the two young sons of my host were present.

It is a beautiful home, located on the side of a hill across the street from the home of Kent Swift.

Returning to the shops about 1:30 p. m., Mr. Carpenter again took me in charge and we went through a portion of the shops.

At my request he first took me to see the new line of opening and picking machinery, and Frank McGowan, foreman of that department, explained to me the features of the machines being built.

Not only were they erecting the usual line of bale breakers, openers, intermediates and finishers, but were building Crichton openers and C. O. B. machines. They recently purchased the patent rights for the C. O. B. machine and have completely redesigned them.

They also had on the floor their first machine for the handling of hard waste.

It would be impossible to describe all that I saw in passing through the immense machine rooms. Machine after machine was working away upon parts of machines to be assembled later. Most of the machines are especially designed to handle certain parts.

I noted that all of the shops do not follow the same methods of manufacture. For instance, the

Saco-Lowell Shops clamp the card arches in chucks and bring them against milling cutters which mill both sides at the same time, whereas the Whitin Machine Works use a circular planer.

In the immense foundry of the Whitin Machine Works, most of the moulding is done by machine drawn moulds and the materials are handled by electric trucks.

They, of course, buy large quantities of steel bars and shafting which comes covered with grease. Their efficiency is indicated by the fact that this grease is removed by dipping the bars and shafting into an oakite solution.

In many operations a stream of oil continually pours on the cutting tools. They have a room in which the oil is filtered and 85 per cent reclaimed.

In their spindle room a row of men are seated on high chairs against the windows and test and straighten every spindle before it leaves the shops.

The manufacture of speeder and slubber flyers requires very expert workmen and if I had had time I would have spent the whole afternoon watching them.

I did spend considerable time watching the manufacture and polishing of rings. I had the idea that rings were polished by machinery, but the work is done by boys with soft wood sticks dipped in emery dust while the rings revolve at a very high speed. They can produce 40,000 rings per week.

They erect their cards complete with exception of clothing but do

not run them before shipping. They have a capacity of 35 cards per week.

They also build waste cards and I was interested in studying the construction of some that were being built for a Southern mill.

When I returned to the office, I met Mr. J. H. Boyd, who has charge of the spinning and twisting departments.

I asked Lawrence Keeler about the maximum capacity of the Whitin Machine Works and he said they could produce a complete 12,000-spindle cotton mill every week.

The work performed in the Whitin Machine Works is wonderful and it is evident to anyone that they do not stand still but are always progressing. The thing, however, that made the greatest impression upon me was the spirit of loyalty and co-operation that was everywhere evident.

They have never had any labor troubles and 1,700 of their 3,000 employees have been with them for five years or more. With other shops located all around them that is a remarkable showing. Fifty-two of their employees have been with them for forty years and twenty-nine of them for fifty years.

The men of the shops say that Kent Swift and Lawrence Keeler are "common," meaning that they mix freely with the workmen and have more than a passing acquaintance with them.

Mr. Carpenter gave me copies of the *"Whitin Spindle,"* containing a history of the Whitin Machine Works and at a later date I will make use of them.

(Continued Next Week)

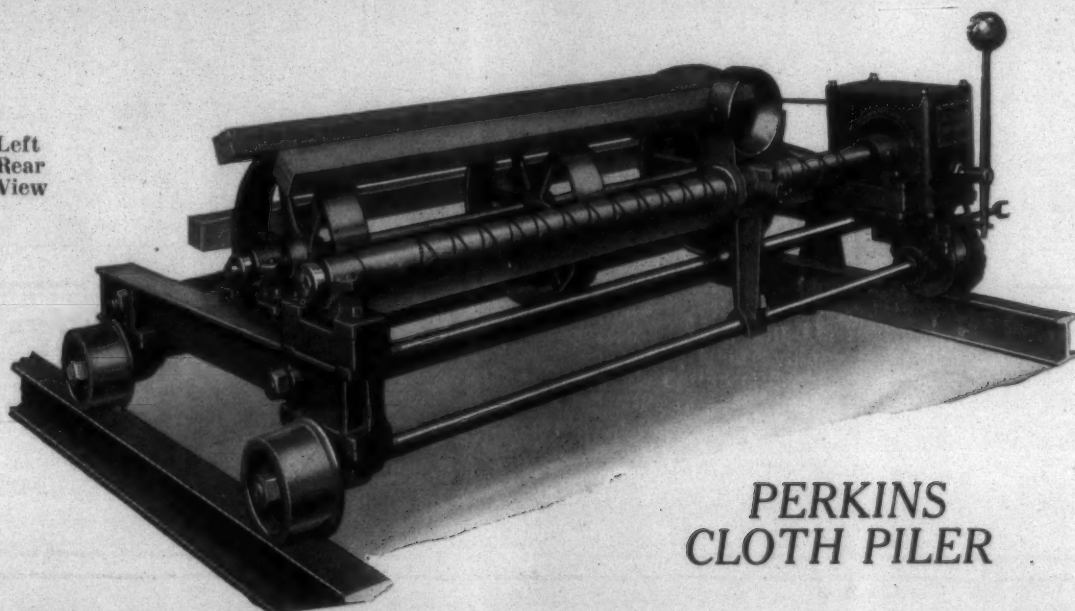


GEORGE MARSDEN MEMORIAL BUILDING, WHITINSVILLE, MASS.

An Up-to-1924 Necessity

*for the Modern Bleachery
and the Modern Dyehouse---*

Left
Rear
View



PERKINS
CLOTH PILER

I*T systematically piles or plaits cloth or
yarn into tanks or vats, doing away
with ALL hand labor.*

*It assures more uniform processing. And
there's no snarling;---no knotting.*

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PERKINS CLOTH PILER

(BIDWELL PATENTS)



CLASSIFICATION OF SOUTHERN MILLS

In the tables given below, an accurate tabulation of the spinning, weaving and knitting mills in the Southern States is shown, together with their equipment. The mills are grouped according to their equipment and product. Mills that spin only are grouped accordingly and the same is true of the mills that spin and weave, spin and knit, knit only and weave only. The table also gives the number of mills in each State, the number of spindles, looms and knitting machines, and the total figures, by States and for the whole South.

The convenient arrangement of the tables clearly shows each division of the mills, together with their equipment. The information contained in the tables is compiled from Clark's Directory of Southern Mills January 1, 1924.

STATE	SPINDLES						LOOMS				KNITTING MACHINES				Total Mills	Total Spindles	Total Looms	Total K. M.
	Spin Only		Spin & Weave		Spin & Knit		Spin & Weave		Weave Only		Spin & Knit		Knit Only					
	Mills	Spindles	Mills	Spindles	Mills	Spindles	Mills	Looms	Mills	Looms	Mills	K. M.	Mills	K. M.				
Alabama	34	344,454	37	1,031,650	1	12,456	37	23,964	2	216	1	95	8	967	82	1,388,560	24,180	1,062
Arkansas	1	6,656	1	8,000			1	150							2	14,656	150	
Georgia	42	513,552	91	2,234,581	7	62,112	91	50,535	3	507	7	2,682	29	3,864	178	2,810,245	51,042	6,546
Kentucky	5	51,384	2	51,040			2	1,390	1	60			5	543	15	102,424	1,450	543
Louisiana	1	5,184	2	90,000	1	8,000	2	2,200			1	500	2	180	6	103,184	2,200	680
Mississippi	2	9,584	13	170,136	1	5,000	13	4,907			1	400			16	184,720	4,907	400
Missouri	1	2,472	1	29,000			1	730					2	16	4	31,472	730	16
N. Carolina	219	2,529,394	142	3,202,748	11	227,408	142	82,635	14	2,190	11	1,386	125	16,551	537	5,933,054	84,825	17,937
Oklahoma			2	15,712			2	364							3	15,712	364	
S. Carolina	31	376,904	129	4,818,378	1	10,656	129	123,962	6	357	1	240	12	1,227	183	5,205,938	124,319	1,467
Tennessee	10	185,384	8	222,116	6	60,476	8	6,340			6	1,012	76	11,178	101	467,976	6,340	12,190
Texas	4	18,712	18	180,780			18	5,282					3	334	27	199,492	5,282	334
Virginia	2	15,378	9	689,788			9	19,307					14	2,633	27	705,166	19,307	2,633
Total	352	4,059,058	455	12,743,929	28	386,108	455	321,766	26	3,330	28	6,315	276	37,493	1181	17,162,599	325,094	43,808

Manufacturers of
Spools of Every Description
Speeders, Skewers, Warp and
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Bobbins, Northrop Loom
Bobbins.

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Doffer Fillets
Napper Clothing

Stripper and
Burnisher Fillets
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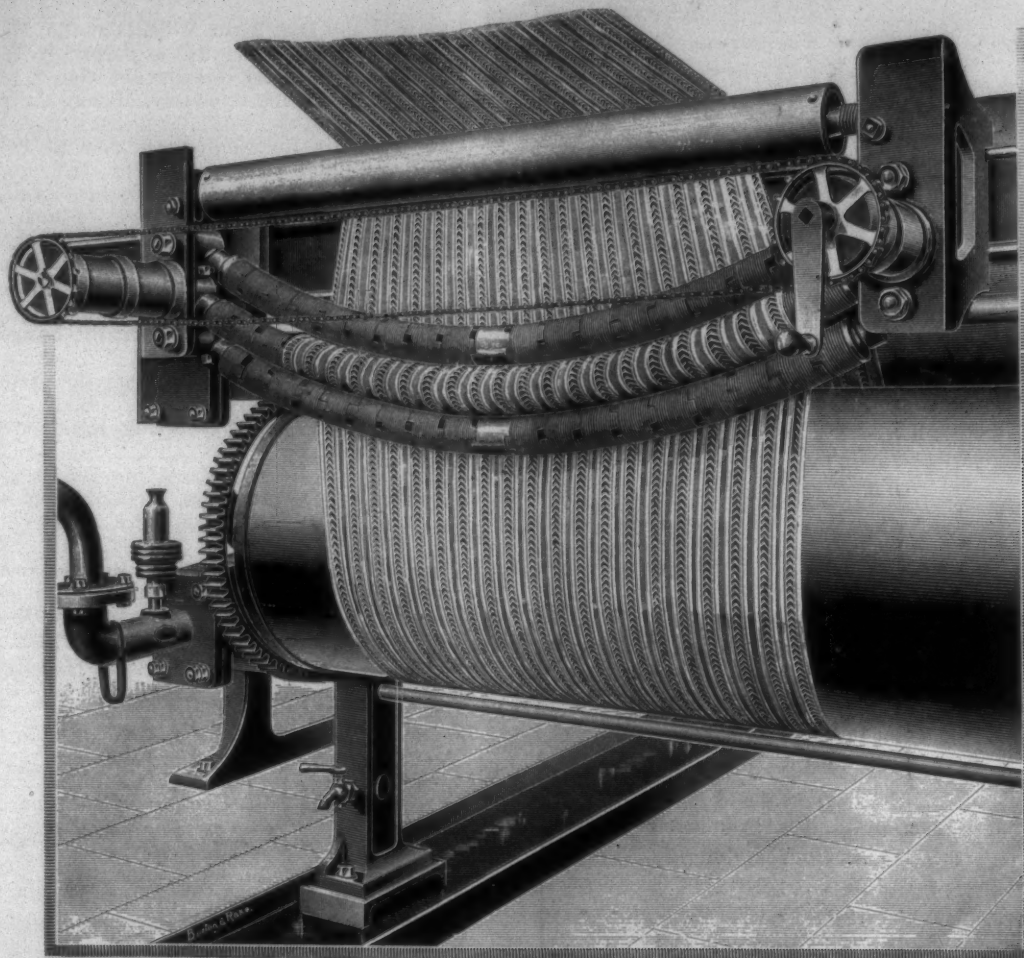
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The Best Materials Obtainable Make Up Our Products

Give us a trial on Cylinder and Doffer Fillets. This
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The Mycock Improved Regulating Cloth Expander

Patented



Expander Attached to Calender Showing Regulating Motion and Adjustable Tension Bars
FOR WATER MANGLES, STARCH MANGLES, DRY CANS, CALENDERS AND MERCERIZING
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The Improved Freerunning Scutcher or Opener

with or without Plaiting Down Attachment



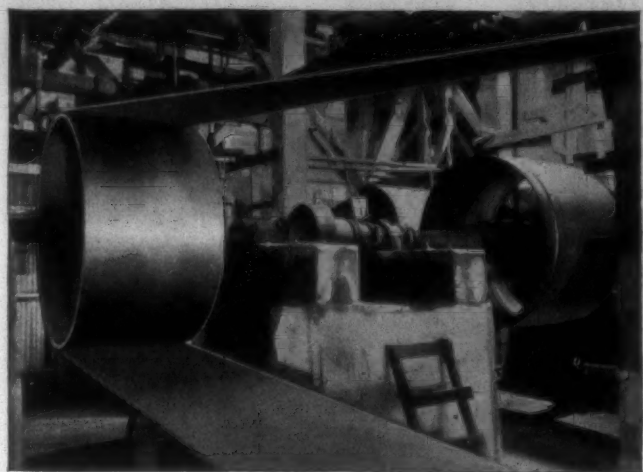
Constructed on most approved lines, fitted with universal bearings throughout, also new idea patented scroll rolls. All revolving parts carefully balanced, which admits high speed and steady running
ALSO STRAIGHT AND ANGULAR GUIDES AND BRASS ROLLERS

Manufactured by

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F. T. WALSH, Vice Pres. and Gen'l Mgr.
Office and Works:

READVILLE STATION, BOSTON 37, MASS.



After Thirteen Years

"THIRTEEN years ago," writes a western man, "you sold us a belt for a drive in our mill and it has been on the job ever since. Without doubt this is the best belt we have ever had, as it is used on the hardest drive in the mill."

"It has, however, finally given out and we would like to have your quotation on a new belt of the same quality."

There are many reasons why Graton & Knight Belts acquire the reputation of being the "best in the mill." This belt lasted thirteen years because it was right—it was made of good, honest, rugged leather, of the quality, weight and flexibility for that particular drive.

The Graton & Knight Standardized Series—the result of years of study of power transmission requirements and condition—is composed of belts that are scientifically right for the duty for which they were designed. There is one to meet every belting requirement no matter what your business may be.

Send for the book "The Standardization of Belting." It tells the whole story of the Graton & Knight Standardized Series. A Graton & Knight engineer will gladly call on you and discuss your power transmission problems. Many plants ask us to specify the belting for every pulley. Our experience is at your disposal. The acceptance of it will put you under no obligation.

GRATON & KNIGHT
WORCESTER, MASS.



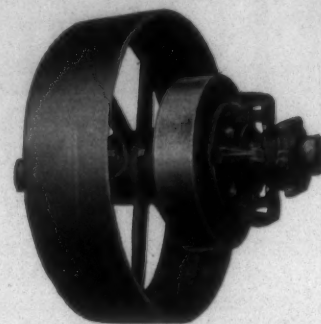
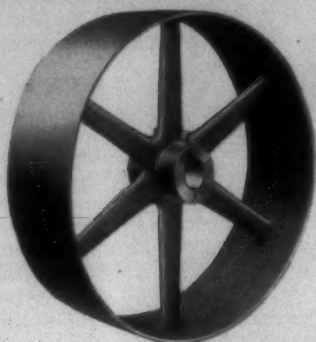
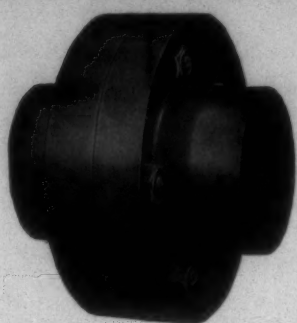
Nothing takes the place of Leather

Large Southern Mill Corporations

This list gives the number of spindles owned by each of the mill corporations that have 50,000 or more spindles, including those under construction. It does not include spindles not located in the South.

	Spindles
1.—Riverside and Dan River Mills, Danville, Va.	467,440
2.—New England-Southern Mills, Pelzer, S. C., Tucapau, S. C., LaGrange, Ga., and Hogansville, Ga.	272,976
3.—Bibb Manufacturing Company, Macon, Columbus; Porterdale, and Reynolds, Ga.	251,656
4.—Avondale Mills, Birmingham, Sylacauga, Pell City, Sycamore, and Alexander City, Ala.	242,664
5.—Pacific Mills (South only), Columbia, Lyman, S. C.	234,000
6.—Consolidated Textile Corporation (South only), Lafayette, Ga., Pelham, Ga., Henderson, Ky., Burlington, N. C., Raleigh, N. C., Bonham, Texas, and Lynchburg, Va.	196,164
7.—Erwin Cotton Mills, West Durham, Duke, and Cooleemee, N. C.	193,360
8.—West Point Manufacturing Company, Langdale, Fairfax, and Shawmut, Ala.	183,416
9.—Victor-Monaghan Company, Greenville, Arlington, Greer, and Walhalla, S. C.	183,296
10.—Cannon Manufacturing Company, Kannapolis, N. C., Concord, N. C., and York, S. C.	161,672
11.—Monarch Mills, Lockhart and Union, S. C.	160,406
12.—Manville-Jenckes Company, Gastonia and High Shoals, N. C.	158,512
13.—Woodside Cotton Mills Company, Greenville, Fountain Inn, and Simpsonville, S. C.	153,920
14.—Union-Buffalo Mills, Union and Buffalo, S. C.	152,800
15.—Proximity Manufacturing Company, Greensboro, N. C.	143,000
16.—Carolina Cotton & Woolen Mills, Spray, N. C., Draper, N. C., Leaksville, N. C., and Fieldale, Va.	141,086
17.—Lancaster Cotton Mills, Lancaster, S. C.	139,608
18.—Pacolet Manufacturing Company, New Holland, Ga., and Pacolet, S. C.	135,922
19.—Chadwick-Hoskins Company, Charlotte, N. C., and Pineville, N. C., and Martinsville, Va.	120,312
20.—Fulton Bag and Cotton Mills, Atlanta, Ga.	120,000
21.—Cabarrus Cotton Mills, Kannapolis and Concord, N. C.	118,000
22.—Standard-Coosa-Thatcher Company, Piedmont, Ala., and Chattanooga, Tenn.	117,968
23.—Merrimack Manufacturing Company, Huntsville, Ala.	108,288
24.—Henrietta Mills, Caroleen, N. C., Henrietta, N. C., and Cherokee Falls, S. C.	105,788
25.—Massachusetts Cotton Mills, Lindale, Ga.	102,016
26.—Washington Mills, Fries, Va., and Mayodan, N. C.	101,696
27.—Wiscasset Mills, Albemarle, N. C.	96,000
28.—Mt. Vernon-Woodbury Mills, Tallassee, Ala., and Columbia, S. C.	94,992
29.—Brandon Mills, Greenville, S. C.	93,700
30.—Graniteville Manufacturing Company, Graniteville, Vaucluse, and Warrenville, S. C.	93,080
31.—Martel Mills, Inc., Asheville, N. C., Columbia, Batesburg, Lexington, and Spartanburg, S. C., and Egan and Douglasville, Ga.	90,040
32.—Clifton Manufacturing Company, Clifton, S. C.	86,800
33.—Bemis Brothers Bag Company, St. Louis, Mo., and Bemis, Tenn.	86,164
34.—Spartan Mills, Spartanburg, S. C.	85,000
35.—Brookside Mills, Knoxville, Tenn.	82,408
36.—Gaffney Manufacturing Company, Gaffney, S. C.	80,512
37.—Winnsboro Mills, Winnsboro, S. C.	77,028
38.—Thomaston Cotton Mills, Thomaston, Ga.	75,000
39.—Dwight Manufacturing Company, Alabama City, Ala.	74,492
40.—Easley Cotton Mills, Easley and Liberty, S. C.	74,008
41.—Anderson Cotton Mills, Anderson, S. C.	71,392
42.—Revolution Cotton Mills, Greensboro, N. C.	71,000
43.—Glenn-Lowry Manufacturing Company, Whitmire, S. C.	71,000
44.—F. W. Poe Manufacturing Company, Greenville, S. C.	70,352
45.—Ware Shoals Manufacturing Company, Ware Shoals, S. C.	70,200
46.—Clinton Cotton Mills, Clinton, S. C.	69,856
47.—Piedmont Manufacturing Company, Piedmont, S. C.	69,412
48.—Durham Hosiery Mills, Durham and Chapel Hill, N. C.	68,966
49.—Eagle and Phoenix Mills, Columbus, Ga.	65,557
50.—Climchfield Manufacturing Company, Marion, N. C.	65,520
51.—Hannah Pickett Mills, Rockingham, N. C.	65,000
52.—Cramerton Mills, Cramerton, N. C.	65,000
53.—John P. King Manufacturing Company, Augusta, Ga.	64,608
54.—Columbus Manufacturing Company, Columbus, Ga.	63,840
55.—Belton Mills, Belton, S. C.	63,036
56.—Highland Park Manufacturing Company, Charlotte, N. C., and Rock Hill, S. C.	62,400
57.—Grendel Mills, Greenwood, S. C.	62,080
58.—Orr Cotton Mills, Anderson, S. C.	62,000
59.—Cliffside Mills, Cliffside and Avondale, N. C.	61,280

(Continued on Page 42)



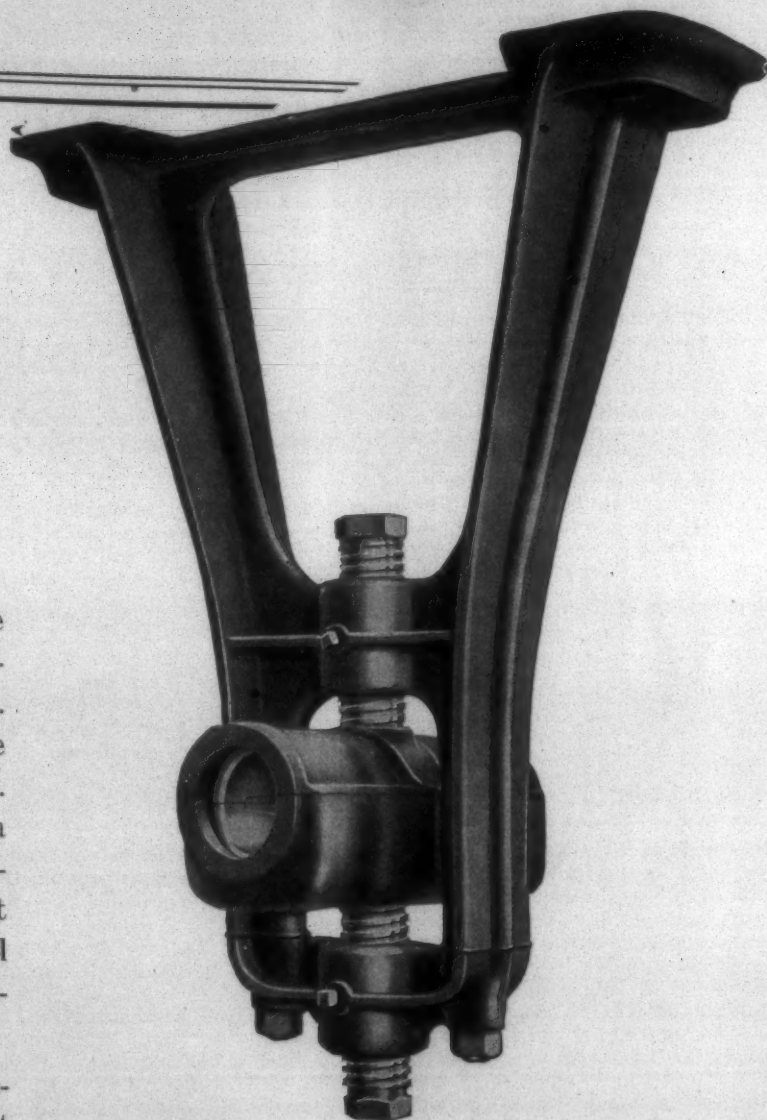
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The **W^{T.B.}OOD^{S.}** Line
SONS CO.

of power transmission appliances.

The facts are awaiting your request.

T.B.Wood's Sons Co., Chambersburg, Pa.

SOUTHERN TEXTILE BULLETIN

Member of Audit Bureau of Circulations

Published Every Thursday by
CLARK PUBLISHING COMPANY
Offices: 39-41 S. Church St., Charlotte, N. C.

THURSDAY, JANUARY 31, 1924

DAVID CLARK
D. H. HILL, JR.
JUNIUS M. SMITH

Managing Editor
Associate Editor
Business Manager

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Contributions on subjects pertaining to cotton, its manufacture and distribution, are requested. Contributed articles do not necessarily reflect the opinion of the publishers. Items pertaining to new mills, extensions, etc., are solicited.

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Our Annual Review.

THIS issue contains carefully compiled lists of the spindles installed in the South during 1923 and those on order at the end of the year. It also contains a list of the knitting machines that have been installed.

The growth of spindles in 1923 was 730,812, which is the biggest increase shown in any year since 1912.

The record of recent years has been:

1912	803,882
1913	435,300
1914	329,410
1915	340,886
1916	619,682
1917	546,168
1918	319,546
1919	425,844
1920	663,446
1921	298,328
1922	285,868
1923	730,812

Spindles installed in 1923 by States were as follows:

Alabama	71,540
Georgia	62,874
North Carolina	421,068
Oklahoma	40,000
South Carolina	81,028
Tennessee	19,284
Texas	24,920
Virginia	40,098

Total 730,812

Knitting machines installed in 1923 were 3,846 and arranged by States were as follows:

Alabama	181
Georgia	411
Kentucky	110
Louisiana	72
Mississippi	100
North Carolina	1,516
South Carolina	135
Tennessee	865
Texas	184
Virginia	272

Total 3,846

Our compilation from the January 1, 1924, edition of Clark's Directory of Southern Textile Mills shows that we now have installed in the South

17,162,599 spindles, 325,044 looms and 43,808 knitting machines.

While profits during 1923 were not such as to encourage the building of new mills or additions and some that were proposed a year ago have been abandoned, our records show that on January 1st there were on order for installation in Southern mills 441,556 spindles, which were divided among the Southern States as follows:

Alabama	20,280
Georgia	106,948
North Carolina	230,364
Oklahoma	5,000
South Carolina	61,964
Texas	17,000
Total	441,556

At the beginning of the year there were many reports relative to the movement of New England mills to the South or the building of branch mills in our section, but very few of the predictions have been realized.

Lockwood, Greene & Co., are moving 32,000 spindles to Lyman, S. C., and 36,000 to Hogansville, Ga.; the Manville-Jenckes Company have moved about 30,000 additional spindles to the Loray plant at Gastonia, N. C., and the American Thread Company will move 30,000 spindles to Dalton, Ga.

During the year Lockwood, Greene & Co. purchased the Tucapau Mills and the Pelzer Manufacturing Company, Goddard Bros. purchased the Victor-Monaghan plant at Seneca, and the Manville-Jenckes Company purchased the High Shoals (N. C.) Mills.

The total of all such changes has been far less than was predicted.

Our list of large mill corporations and mill groups will be found interesting, as they show some striking changes.

The purchases by Lockwood, Greene & Co. and their installations at Lyman, S. C., and Hogansville, Ga., has brought them into the position of the second largest of the mill groups.

On the other hand, the sale of three mills by the Victor-Monaghan Company has dropped them very far down the list.

A recent and significant development is the purchase of land in the South by three of the large bleaching and finishing companies.

We are publishing a list of twenty-seven large piece goods bleacheries in the South and nine yarn mercerizing plants. Future development along such lines will be very rapid.

The year 1923, as relating to cotton manufacturing, was not remarkable but progress in the South has been better than elsewhere.

Federal Child Labor Law Will Be Passed

THE present Congress will pass the resolution to submit to the States a constitutional amendment nominally permitting Congress to pass a Federal child labor law but actually placing Congress in immediate and direct control of the industries of this country.

What purports to be a resolution to permit a child labor law is in reality a resolution to permit a 48-hour week, a minimum wage bill and Congressional control of all details of manufacture.

The New England manufacturers who have advocated the proposed resolution as a means of eliminating child labor conditions which they erroneously believe to exist in the South, will later be willing to pay millions to get from under the domination of Congress and for the next twenty-five years they will feel like kicking themselves for their present asininity.

The resolution now before Congress provides—

Congress shall have the power to prohibit the labor of persons under eighteen years of age and to provide the conditions of such labor.

The first portion of the resolution is the child of the Children's Bureau of the Department of Labor but the portion "and to provide the conditions of such labor" is the creation of Samuel Gompers and it gives to him his long sought national 48-hour law and his minimum wage bill.

The Gompers sections gives to Congress all the rights which they would have had in case either of the Federal Child Labor Laws had been held unconstitutional by the United States Supreme Court and nullifies the fight that we have, for twelve years, made in behalf of States' rights.

We spent some time in Washington this week and are confident that the Constitutional Amendment Resolution will be passed; in fact, we expect it to be favorably reported by the Senate Judiciary Committee.

The combination of a patronage seeking Government bureau, Samuel Gompers and the New England manufacturers is too much to overcome.

An intense propaganda campaign of falsehoods and half truths has been conducted under the influence of Miss Grace Abbott, of the Children's Bureau, and public sentiment has been created.

The passage of the resolution is practically assured and there is little doubt that it will be passed by the necessary thirty-eight States.

New England Mills Fight South With Backs to Wall

JUST how keenly the New England mills are feeling the competition of Southern mills was very clearly stated last week at a meeting of the Rhode Island Textile Association. Upon the subject of the textile activity of the two sections, Frank E. Richmond, president of the association, said:

"The cotton mills in Rhode Island are being steadily forced out of business. While it is true that a few manufacturers, more fortunate than the average, are still making a go of it, the cotton industry in Rhode Island, as a whole, is fighting Southern competition with its back against the wall. Today many of our cotton manufacturers would rather have a protective tariff against the South than against England."

Another speaker before the association minced no words in outlining the position of the New England mills. James R. MacColl, president of the Lorraine Manufacturing Company, and a former president of the National Association of Cotton Manufacturers, stated that there would be a gradual transference of the cotton mills from New England to the South. In his address, we find the following:

"As regards cotton, it is probable that the zenith of local prosperity has passed, that future extensions will be made in the Southern States, and that there will be a gradual transference of plants and machinery from New England to the South. The reason is apparent; if wages are 30 or 40 per cent lower in the South and hours of work longer, Rhode Island cannot compete in many classes of goods. For the last three months the average spindle hours per month in North and South Carolina were 278, in Massachusetts 149 and in Rhode Island 193. This shows clearly, that, under present conditions, many mills in New England find it involves less loss to curtail production and stop machinery than to operate in competition with Southern prices."

The handwriting on the wall is becoming more and more significant to the mill men of New England and their leaders see clearly future trend of the industry. We have never believed that there would be a wholesale movement of New England mills to the South, as has been so freely predicted in some quarters, but we do believe that the number of New England mill owners who turn to the Southern field will increase steadily during the coming years.

The South is combining its natural advantages with a manufacturing skill that is becoming more highly developed as each year passes.

Bobbins and Spools

Filling Bobbins---for plain and automatic looms

Warp Bobbins---Warp or filling wind

Twister Bobbins---solid or three piece

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Skewers and Rolls

Warp and Twister Spools---plain or with metal shields

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Southern Agent

A. B. CARTER, Gastonia, N. C.



A Happy New Year for Everybody in the Winding Room!

Packages that are beyond criticism are assured only when the cones are beyond criticism. Sonoco Cones are made with such accuracy that they fit the mandrels like a glove. Their uniformity makes them interchangeable—a part of the winder. They are perfectly balanced and are dependable always to give

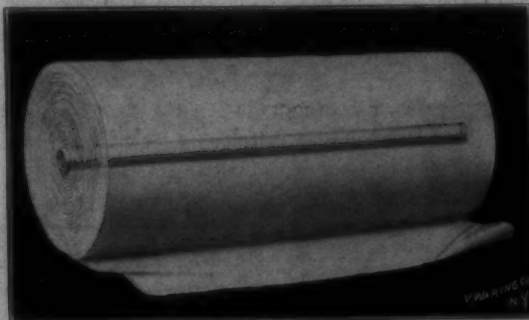
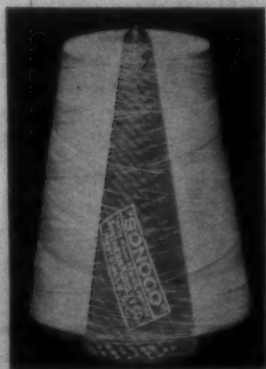
a true-wound product with even tension throughout every yard of yarn that is wound.

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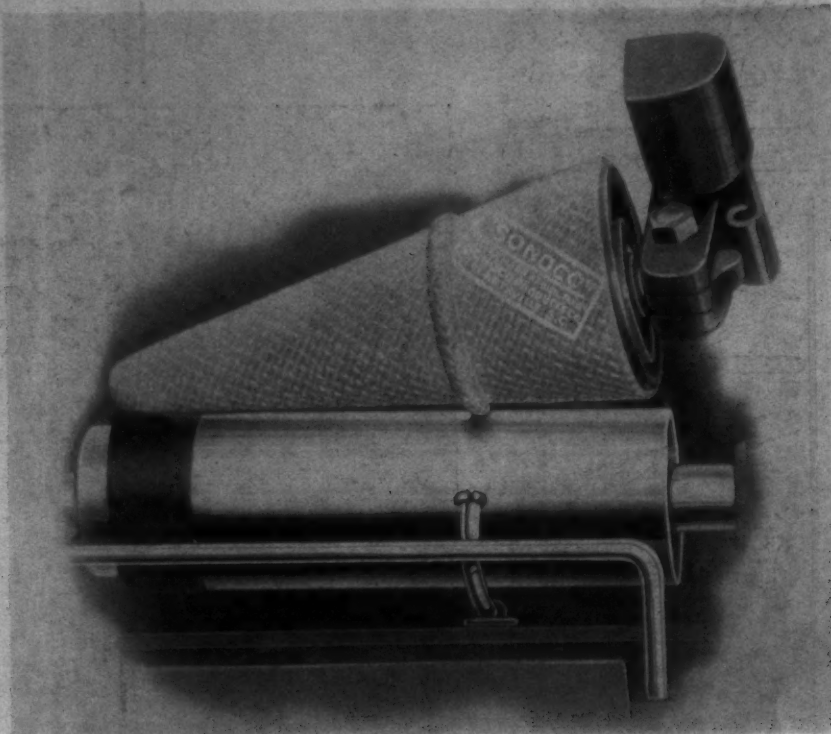
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The Picture tells it's Story:

The cushion is in direct parallel contact with the driving cylinder:

The apex of the cone rests on the loose section of the cylinder:

The body of the cone is lifted free from the drive:



Something New in Sonoconology!

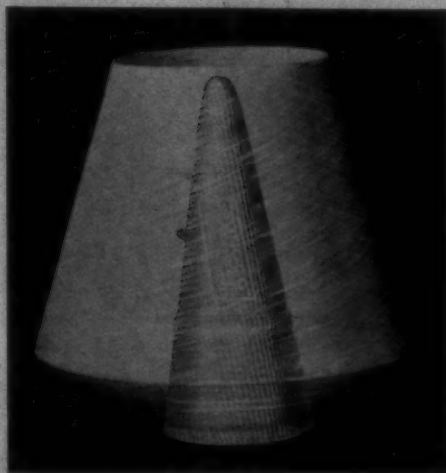
The "Cushion-Cone" for Friction-Driven Winders:

The Inventor tells his Story of

The "Cushion-Cone" assures a positive parallel relation between the surface-drive and the traverse motion of the machine:

It "irons out," conforming to the true running of the spindle, thus levelling the yarn on the surface of the cone and avoiding any jumping of the yoke:

It prevents cob-webbing, invariably producing a perfectly-wound back:



Manufactured by License,
Under Patent No. 1458587

the Action of the Cushion-Cone:

It precludes waste by keeping the yarn from rolling off toward the point of the cone:

It eliminates re-winding, which is an expensive operation—and one that does not improve the quality of yarn:

The yarn winds perfectly on Sonoco Cushion-Cones and should, with the same evenness, unwind for the knitter.

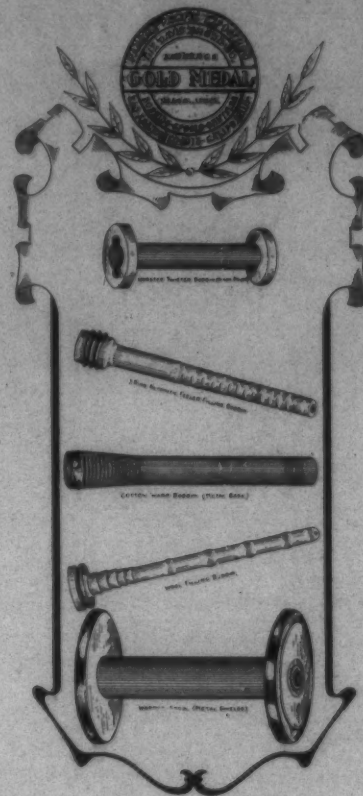
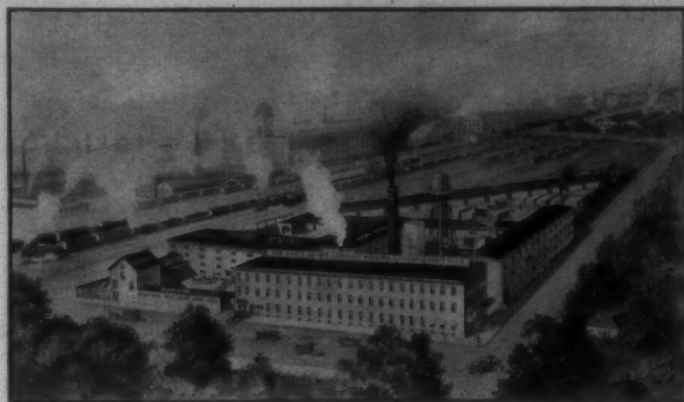
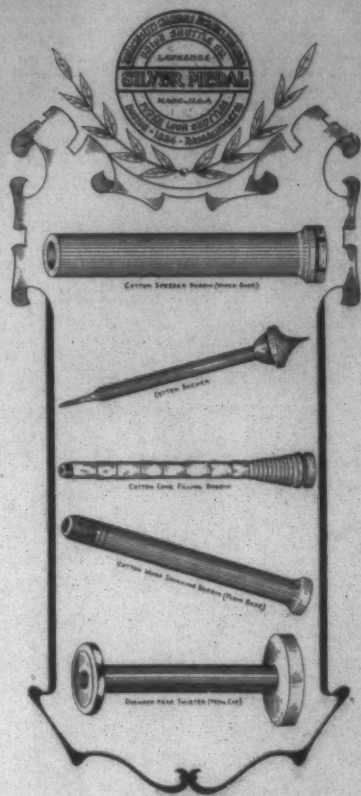
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Our*

"HIGH GRADE" Bobbins, Spools and Shuttles

Our Facilities Are the Best

Our Quality the Finest

Personal News

John Arrowood has resigned as overseer of carding at the Spindale Mills, Spindale, N. C.

H. C. Abernethy, from Arrow Mills, is overseer of carding at Saxony Spinning Company, Lincolnton, N. C.

C. H. Hewett, formerly of Newton, is overseer of spinning at Anderson Mills, Lincolnton, N. C.

J. N. Green, from Cramerton, N. C., is fixing looms on dobby section at Lola Gingham Mills, Stanley, N. C.

J. R. Clinton has been promoted from speeder tender to second hand in night carding at the Hawthorne Mills, Clover, S. C.

W. H. Long, formerly of Saxony Spinning Mills, is overseer of spinning in Melville Mills No. 2, Lincolnton, N. C.

E. C. Kisler has been promoted from card grinder to overseer carding at the Spindale Mills, Spindale, N. C.

I. B. Paris has been transferred from overseer carding to overseer spinning at the Hampshire Spinning Mills, Clover, S. C.

J. R. Parish has resigned as overseer of carding at the Osceola Mills, Gastonia, N. C., to accept a similar position at the Hampshire Spinning Mill, Clover, S. C.

Ed. McGee has been transferred from the Saxony Spinning Company to overseer of carding at Melville Manufacturing Company No. 2, Lincolnton, N. C.

J. L. Stamey, superintendent of Saxony Spinning Company, will also be superintendent Melville Manufacturing Company No. 2, Lincolnton, N. C.

J. C. Faires has resigned as second hand in spinning at the Clover Mills, Clover, S. C., to become night overseer spinning at the Hawthorne Mills, of the same place.

E. L. Walters has resigned as overseer of spinning at the Hampshire Spinning Company, Clover, S. C., and accepted a position with the Loray plant of the Manville-Jenckes Company, Gastonia, N. C.

B. B. Brachette, formerly with the Dixie Spindle and Flyer Company, Charlotte, but more recently spindle plumber at the Hampshire Spinning Mills, Clover, S. C., is now second hand in night spinning at the Hawthorne Mills, Clover, S. C.

George H. Lanier, of West Point, Ga., has been elected a director of the Fourth National Bank of Atlanta. Mr. Lanier is vice-president and general manager of the Wellington-Sears interests of Alabama and Georgia, and one of the leading textile executives of the Southeast. His election is especially interesting because he is the only out-of-town director of this large institution.

J. T. Hedgepath has resigned as second hand in night carding at the Hawthorne Mills, Clover, S. C.

9,807,138 Bales Cotton Ginned Prior to January 1.

Washington.—According to the report of the Census Bureau, issued here, there remained to be ginned, after January 1, 1924, a total of 273,862 bales of cotton from the 1923 crop, in order to bring the final yield up to the government's final estimated of December 12, 1923, which was 10,081,000 bales. Estimated ginnings up to January 1, 1924, according to the bureau's report, amounted to 9,807,138 running bales, compared with 9,597,330 bales during the same period a year ago.

Included in the total ginnings to January 1 were 234,723 round bales, counted as half bales; 18,639 bales of American-Egyptian, and 776 bales of Sea Island, compared with 166,072 round bales, 22,498 bales of American-Egyptian, and 5,069 bales of Sea Island ginned to January 1, 1923.

This ginning report indicates that the States of Florida, Georgia, Louisiana, Oklahoma and Tennessee have ginned more cotton than was estimated by the Department of Agriculture, in its final estimate on December 12, 1923.

Franklin Process Company Receives Large Dyeing Machine Export Order.

It is reported that the Franklin Process Company (main office and machine shop at Providence, R. I.) have recently received, through the Universal Winding Company, foreign selling agents, a large export order from India for Franklin Dyeing Machines. This order, together with a moderate amount of domestic orders now on the books, will carry the machinery department of the company well into next June.

The Universal Winding Company also reports that it obtained orders for complete Universal Winding Machine equipment to be used in conjunction with the Franklin Dyeing Machines.

Butterworth Establishes Plant in the South.

H. W. Butterworth & Sons Company, manufacturers of textile machinery, with a home office in Philadelphia, has taken over the plant of the Greenville Iron Works, Inc., Greenville, S. C.

The Butterworth Company has taken this step following the recent establishment of a branch office in the Woodside Building in Greenville. This office is in charge of J. Ebert Butterworth, treasurer of the company, assisted by J. Hill Zahn.

Announcement of the plans of the company for the operation of the new Greenville plant will be made within the next week.

Cotton-Bleachers

SOFTNESS—

combined with

STRENGTH of fibre and a

PERMANENT white,

WITHOUT increase in COST—

isn't that what you want?

If you are not getting it,

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Artificial Silk

This is comparatively a new material for fabric making but is rapidly growing in favor for mixed fabrics, especially with cotton mills on all sizes of average numbers, fine and coarse. The artificial silk yarn is so different from yarn of any other material that it requires special attention to the harness-eye in order to make a satisfactory fabric.

From the very first, when this new material began to be used, we have been making heddles for artificial silk yarns and have continued to improve and perfect the harness-eye until now it is generally conceded that any mill, whether making cotton, silk or other fabrics, can without hesitation depend upon our artificial silk loom harness to make a fabric with entire satisfaction. And the beauty of it is that these heddles are interchangeable for use on cotton, silk, and yarns of other material just as well.

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"Duplex" Loom
Harness—complete
Frames and
Heddles fully
assembled

Harness Frames
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HAMPTON SMITH

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Drop Wires
Nickel-Plated
Copper-Plated
Plain Finish
Improved
Leno Reeds
Lease Reeds
Combs
Loom Reeds

MILL NEWS ITEMS OF INTEREST

Marion, S. C.—The Chamber of Commerce, of which R. J. Blackwell is president, has started a movement to locate a new mill here.

Belmont, N. C.—At the annual meetings of the Sterling, Acme and Crescent Mills, dividends of five per cent were paid by each company. All officers and directors were re-elected.

High Point, N. C.—The Galax Knitting Company, of this city, has been chartered, with an authorized capital stock of \$200,000. G. C. Robbins, H. A. Moffitt and George T. Penney, all of High Point, are the incorporators.

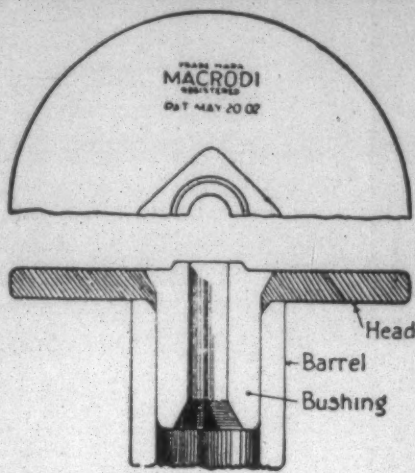
Alexander City, Ala.—The Russcony Mill, with a capital of \$200,000, has completed its new mill buildings and is now putting in its equipment, 2,448 spindles, and will make 14s single yarns. They expect to begin operating in about 30 days.

Selma, Ala.—Three local civic organizations have launched a campaign to raise \$5100,000 to advertise the advantages offered by Selma as a location for cotton mills. Business men state that the town has very decided advantages to offer mill companies and expect to induce at least one mill company to locate here this year.

Gastonia, N. C.—The Purdue Spinning Company, just incorporated here, will not erect a new mill, but was formed as a holding company which has leased the Cardinal Mills, of West Point, Miss. The office of the company will be maintained here. This mill was formerly leased by E. T. Switzer, of the Cotton Products Company.

Franklin, N. C.—At a meeting here of a number of business men, more than \$100,000 was subscribed toward a fund with which it is proposed to erect a cotton mill and build a power dam in Franklin county. The proposed dam across the Little Tennessee River would develop 1,500 horsepower, of which 300 horsepower would be used for operating the mill and the remainder sold to other industries. W. A. Harrill, cotton manufacturer of Rutherfordton, N. C., addressed the meeting on the possibilities of establishing the new mill.

Danville, Va.—The Riverside and Dan River Cotton Mills held their annual stockholders' meeting, the event being unusually well attended. The report of R. A. Schoolfield, chairman of the board, was presented, also a financial statement showing an increase of over a million dollars in the surplus which is now \$11,221,755. The total liabilities and resources was shown to be \$31,149,653 against nearly twenty-nine millions last year. The report from the board was viewed by stockholders as encouraging.



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Durable — Economical

Write for particulars of the added traverse with corresponding increase in yardage—an important feature of this spool. Prompt deliveries in two to three weeks after receipt of order.

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Woonsocket, Rhode Island

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Southern Mill Stocks

We shall be glad to serve you

if you care to buy or sell

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North Carolina Bankers Association

A Good Textile Selling Agent

THAT is a mill's best assurance of production stability. Our selling is based upon sound, tested merchandising ideas, founded in turn on an intimate knowledge of market conditions and buyers.

We will be glad to hear from mill executives interested, to explain our ideas in this matter.

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General Designs, Planting, Grading and Detail Plans
Supervision of Landscape and Engineering Construction
Sewer and Water Development

Largest Landscape Organization in the South

McKinney, Tex.—Plans for the erection of a second new mill here in 1924 are being made by the Chamber of Commerce. It is sad that a large part of the necessary capital for building the mill has already been subscribed. Walter B. Wilson is president of the Chamber of Commerce.

Gastonia, N. C.—The Gastonia Woolen Mills, incorporated last week with a capital stock of \$10,000 by John E. White, K. M. Glass and others, is manufacturing woolen cloth to be used as a foundation for covering spinning rolls. It is expected that it will later produce woollens for other purposes.

Andalusia, Ala.—Sufficient capital to erect a new cotton mill to cost \$750,000 is expected to be subscribed here within a short while, the move for the new mill having been undertaken by the Business Men's Club. A part of the stock has already been subscribed and the prospects are that the remainder can be had entirely among local people, officers of the club say.

Marble Falls, Tex.—The Marble Falls Textile Mills, of Dover, Del., has purchased a tract of land on the Colorado River and plans to erect later a mill of 10,000 spindles, supplied with water power from a dam at Marble Falls. For the present the company will occupy a two-story building which it has leased and will begin installation of machinery in April. Address Jack Hyman, attorney, Dallas, Tex.

Marshall, Tex.—The Chamber of Commerce reports that it has received a proposition from a syndicate of cotton mill men to establish a new mill here. The offer is to subscribe \$50,000 of the capital of \$500,000 for the new mill company. The machinery cost is estimated at \$250,000 and the building at \$150,000. A committee has been appointed to see if the \$450,000 necessary can be subscribed locally.

New Braunfels, Tex.—The Planters and Merchants Mills, of this city, is now in full operation, and the gingham cloth turned out in 20 different patterns has been placed with merchants all over the State, and with the following dry goods merchants of this city: Jacob Schmidt & Son, S. V. Pfeuffer Co., Oscar Haas & Co., Elband & Fischer and Faust & Co. The cloth is known as Blue-bonnet gingham and is made in a width of 32 inches.

Seneca, S. C.—Plans for the transfer of 500 textile looms from the Rhode Island plants of the Lonsdale Company, owned by the Goddard interests, to their plant here, which was purchased from the Victor-Monaghan chain several months ago, are now being prepared by J. E. Sirrine & Co., engineers, of Greenville.

The plans for expanding the Lons-

dale Company's newly acquired mill at Seneca call in part for a weaver shed to house an initial installation of 1,000 looms, 500 of which will be taken out of the existing main mill building and 500 will be moved from one of the company's Rhode Island mills. The Seneca plant was purchased from the Victor-Monaghan chain late in 1923, by the Goddard brothers, who have for a long period operated plants at Lonsdale, R. I.

The transfer of the machinery from the company's New England holdings is part of the expansion program mapped out for the Seneca plant and is deemed significant as a forerunner of other transfers from other manufacturies in the North and East to plants in the Piedmont section of the Carolinas.

Salisbury, N. C.—At the annual meeting of stockholders of the Rowan Cotton Mill, a semi-annual dividend of 5 per cent was declared. The report of the secretary and treasurer, A. E. Davis, showed that the mill had earned over \$11 per spindle during the year 1923.

The mill has placed an additional thousand spindles during the year, and this machinery has been paid for out of the earnings. All the officers were re-elected.

Chattanooga, Tenn.—Officers and directors were re-elected at the annual meeting of stockholders and directors of the Dixie Mercerizing Company. The 10 per cent dividend on common stock announced at the December meeting was approved and reports showed that 1923 had been very satisfactory. The plant is operating full time with enough orders on hand to insure operation at this rate for four months.

Officers re-elected are: J. T. Lupton, president; T. H. McKinney, vice-president and general manager; Carter Lupton, treasurer, and G. H. Ellis, secretary.

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Great Falls, S. C.—It is understood that the Republic Cotton Mills, which recently purchased 128 additional acres of land adjoining their present property, did so to insure space for future expansion and not with an idea of utilizing the additional land in the near future.

Oklahoma City, Okla.—The local Chamber of Commerce, through its development committee, is making efforts to locate a cotton mill here. A. O. Campbell, chairman of the committee, is corresponding with four mill companies regarding the proposed mill.

Greensboro, N. C.—Contract for the erection of an addition to the plant of the Blue Bell Overall Company here has been let to Angle & Moser, Greensboro contractors, for \$33,000. Work will begin at once. The structure, which will be of steel and reinforced concrete, is expected

to be completed by May 1. It will be 55 by 120 feet. The addition to the plant will give it a capacity of 1,000 pairs of overalls daily, C. C. Hudson, president of the company, says. The present capacity is 800 pairs daily. Dimensions of the present plant are 226 by 65 feet, so the addition will make a plant 343 by 65 feet in size.

Fifth of Cotton Cloth Dollar is Given to Farmer.

Washington, Jan. 22.—Manufacturers receive almost one-half, retailers about one-third and growers of cotton less than one-fifth of each dollar spent for cotton cloth, it was revealed today in a preliminary report of the Department of Agriculture of an analysis made. Separate analyses were made to show how the consumers' dollar is divided among the various agencies engaged in the production and manufacture of cot-

ton sheeting, ginghams, calico and percale. The average of these four items show the growers received 18.9 cents. The difference between the growers' price and quotations on the New Orleans Cotton Exchange average 2.4 cents. Transportation to New England mills average 1.25 cents. The difference between the New Orleans price and the price of finished cloths in New England averages 45.2 cents, which goes to pay for miscellaneous cotton handling and carrying charges, for the cotton dealers' service and for manufacturing the cloth as well as the selling expense. The jobbers and retailers' margin combined averaged 32.3 cents.

The retail mark-up on cotton goods, the report says, varies from around 25 per cent to 50 per cent of the selling price. Jobbing margins vary from five to twenty-five per cent of the jobber's cost price. Manufacturing margins have not been isolated, but they are the largest single item in the spread between the price of raw cotton and the price of cotton cloth.

Census Bureau to Help Gather Outerwear Statistics.

The U. S. Bureau of the Census will co-operate with the National Knitted Outerwear Association in gathering trade statistics, it was announced by Emil Zvirin, secretary of the National Knitted Outerwear Association. The bureau had been approached on the subject by the association, which, as noted, has for some time been considering the advisability of extending its statistical service.

*Harold J. Gross, James H. Hurley and
E. Tudor Gross, Auctioneers*

1007th Auction Sale

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—By—

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TUESDAY, FEBRUARY 5th, 1924

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DEXTER YARN COMPANY

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755

MACHINERY AND EQUIPMENT

Complete Plant for the Manufacture of Cotton Yarns from No. 10 to No. 40, both Combed and Carded, in Any Ply
An exceptionally up-to-date and excellent lot of cotton machinery—90% new within the last twelve years—many machines new within the last four years—the entire outfit 100% efficient.

To be Sold Separately, in Lots to Suit Purchasers, in the Order Numbered in Catalogue, to the Highest Bidders Without Limit or Reserve

Apply for Descriptive Catalogue to

G. L. & H. J. GROSS

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Save Middle Man's Profit. Try Us.
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THE CHOICE OF A HUMIDIFYING SYSTEM

must be one that for simplicity with great capacity and economy in maintenance produces uniformly such conditions that may be determined for the different requirements of the work. In the American Moistening Company's method of humidifying, all such requirements are GUARANTEED

Our COMINS SECTIONAL HUMIDIFIERS

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Our VENTILATING Type of Humidifier (Taking fresh air into the room from outside)

Our ATOMIZERS or COMPRESSED AIR SYSTEM

Our COMPRESSED AIR CLEANING SYSTEM

Our CONDITIONING ROOM EQUIPMENT

Our AUTOMATIC HUMIDITY CONTROL (Can be applied to systems already installed)

Our AUTOMATIC TEMPERATURE CONTROL

Are all STANDARDS OF MODERN TEXTILE MILL EQUIPMENTS

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SOUTHERN OFFICES, 276 Marietta St., Atlanta, Ga., No. Charlotte, N. C.

FRANK B. COMINS, General Manager

TALLOW—OILS—GUMS—COMPOUNDS**TEXTOL**, a new product especially for Print Cloths. A complete warp size, requires no addition of tallow

TRADE MARK

Tallow, Soluble Grease, Soluble Oils, Gums, Glues, Gum Arabol, Lancashire Acme Size, Waxes, Finishing Pastes, Soaps, Glycerine, Ready-made Heavy Size, Sago and Tapioca Flours, Dextrines, China Clay, Soluble Blue, Bone Grease, Bleachers' Blue.

SPECIAL COMPOUNDS FOR WARPS, WHERE STOP MOTIONS ARE USED.

WEIGHTING COMPOUNDS FOR COLORED AND WHITE WARPS. FINISHING COMPOUNDS FOR ALL CLASSES OF FABRICS.

The Arabol best grades of cotton warp sizing compounds make the "finest weaving and will hold the fly."

These compounds are based on the best practical experience and the best materials used in their manufacture.

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P. D. JOHNSON, Georgia Representative, Atlanta, Ga.
Southern Agent: Cameron McRae, Concord, N. C.

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Factories: Brooklyn, N. Y.
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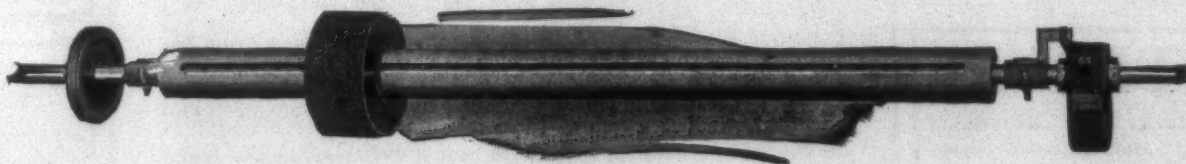
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Manufacturers of

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**Textile Grinding Machinery
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Repaired***Southern Agent, E. M. TERRYBERRY, 1126 Healy Bldg., Atlanta, Ga.***B. S. Roy & Son Co., Worcester, Mass.****Established 1868**

Purchasing Agents for Southern Mills

SAM R. ZIMMERMAN, Purchasing Agent

The following is a list of the mills for which Sam R. Zimmerman, of Greenville, S. C., does the buying.

	Spindles	Looms
Anniston Mfg. Co., Anniston, Ala.	14,992	360
Anniston Yarn Mill, Anniston, Ala.	5,712	—
Aragon Cotton Mills, Rock Hill, S. C.	23,552	566
Arcade Cotton Mills, Rock Hill, S. C.	18,576	452
Baldwin Cotton Mills, Chester, S. C.	31,488	890
Camperdown Mills, Greenville, S. C.	15,056	612
Dunean Mills, Greenville, S. C.	50,720	1,800
Enoree Mills, Enoree, S. C.	32,416	836
Excelsior Knitting Mills, Union, S. C.	10,656	—
Glenn-Lowry Mfg. Co., Whitmire, S. C.	71,000	1,650
Graniteville Mfg. Co., Graniteville, S. C.	45,120	932
Graniteville Mfg. Co., Vauluse, S. C.	11,880	762
Graniteville Mfg. Co., Warrenville, S. C.	36,080	1,000
Industrial Cotton Mills, Rock Hill, S. C.	18,840	1,000
Monarch Mills, Union, S. C.	103,222	2,365
Monarch Mills, Lockhart, S. C.	57,184	1,700
Piedmont Mfg. Co., Piedmont, S. C.	69,412	1,984
F. W. Poe Mfg. Co., Greenville, S. C.	70,352	1,700
Profile Cotton Mill, Jacksonville, Ala.	40,844	—
Seneca Company, Seneca, S. C.	19,864	500
Victoria Cotton Mills, Rock Hill, S. C.	16,952	700
Wallace Mfg. Co., Jonesville, S. C.	15,980	424
Victor-Monaghan Co.		
Apalache Plant, Arlington, S. C.	19,712	500
Greer Plant, Greer, S. C.	25,600	730
Monaghan Plant, Greenville, S. C.	60,032	1,540
Victor Plant, Greer, S. C.	59,136	1,511
Walhalla Plant, Walhalla, S. C.	18,816	1,010
Total	963,194	25,524

LUTHER M. McBEE, JR., Purchasing Agent

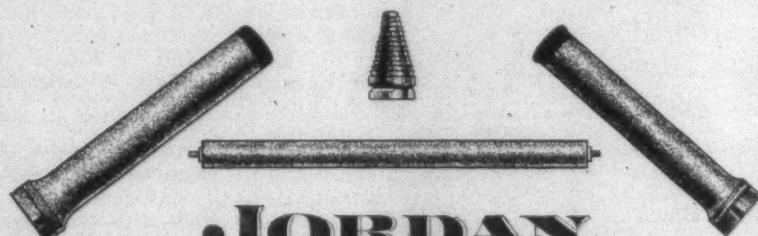
The following is a list of the mills for which Luther M. McBee, Jr., of Greenville, S. C., does the buying:

	Spindles	Looms
Alice Mills, Easley, S. C.	24,576	532
Banna Mfg. Co., Goldville, S. C.	14,224	352

Brandon Mills, Greenville, S. C.	93,700	2,268
Brogan Mills, Anderson, S. C.	30,468	900
Calhoun Mills, Calhoun Falls, S. C.	40,960	1,000
Chadwick-Hoskins Co., Charlotte, N. C.	90,320	2,001
Chadwick-Hoskins Co., Pineville, N. C.	12,092	312
Clinton Cotton Mills, Clinton, S. C.	69,856	1,570
Conestee Mills, Greenville, S. C.	20,292	559
Columbia Mfg. Co., Ramseur, N. C.	11,280	300
Corriher Mills Co., Landis, N. C.	9,072	—
Courtney Mfg. Co., Newry, S. C.	25,344	624
Cowpens Mill, Cowpens, S. C.	17,360	450
Dillon Mill, Dillon, S. C.	27,048	—
Dillon Mill, Hamer, S. C.	13,464	—
Exposition Cotton Mills, Atlanta, Ga.	60,000	1,596
Franklin Mills, Greer, S. C.	11,120	313
Georgia Cotton Mills, Griffin, Ga.	28,000	910
Glenwood Cotton Mills, Easley, S. C.	45,976	1,160
Hartwell Mills, Hartwell, Ga.	8,080	216
Hartwell Mills, Toccoa, Ga.	9,152	284
Hermitage Cotton Mills, Camden, S. C.	16,640	390
Issaqueena Mills, Central, S. C.	25,680	630
Judson Mill, Greenville, S. C.	52,864	2,008
Lavonia Cotton Mfg. Co., Lavonia, Ga.	8,000	—
Linn Mills Co., Landis, N. C.	19,892	—
Leaksville Woolen Mill, Leaksville, N. C.	1,080	22
Leaksville Woolen Mill, Homestead, N. C.	1,800	48
Lydia Cotton Mills, Clinton, S. C.	22,500	500
Martinsville Cotton Mill, Martinsville, Va.	17,920	444
Mills Mill, Greenville, S. C.	35,584	816
Muscogee Mfg. Co., Columbus, Ga.	50,000	814
Newberry Cotton Mills, Newberry, S. C.	44,000	1,224
Norris Cotton Mills Co., Catechee, S. C.	19,968	440
Oakland Cotton Mills, Newberry, S. C.	26,432	600
Osage Mfg. Co., Bessemer City, N. C.	16,272	400
Pelham Mills, Pelham, S. C.	10,936	—
Pendleton Mfg. Co., Autun, S. C.	3,850	12
Pickens Mill, Pickens, S. C.	23,040	606
Poinsett Mills, Greenville, S. C.	27,756	726
Republic Cotton Mills, Great Falls, S. C.	58,848	2,320
Riverside Mfg. Co., Anderson, S. C.	37,072	—
Riverside Mfg. Co., No. 3, Pendleton, S. C.	10,752	—
Roswell Mfg. Co., Roswell, Ga.	12,384	120
Santee Mills, Bamberg, S. C.	14,848	400
Santee Mills, Orangeburg, S. C.	14,848	392

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MANUFACTURING COMPANY
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Serving Southern Cotton Mills
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NATIONAL ERIE BLACK B EXTRA

*It yields full blacks—
bloomy and brilliant*

WHEN you want a bright, bloomy black on cotton, silk or union goods—a black that is neither too jet nor too red-dish—use National Erie Black B Extra.

Its excellent solubility and level dyeing properties make it preferable to other direct blacks for the dyeing of natural and artificial silks. When used on union materials, the wool is dyed a rich blue black.

Test this "National" Black on your own goods with a product sample—you will find it dependable.

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Boston Philadelphia San Francisco
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"NATIONAL" DYES FOR TEXTILES



Southern Worsted Corp., Greenville, S. C.		
Sutherland Mfg. Co., Augusta, Ga.	5,616	336
Toxaway Mills, Anderson, S. C.	30,384	788
Union Bleachery, Greenville, S. C.		
Vardry Mills, Greenville, S. C.	4,320	
Watts Mills, Laurens, S. C.	43,200	984
Williamston Mills, Williamston, S. C.	32,256	750
Woodruff Cotton Mills, Woodruff, S. C.	44,052	910
Total	1,395,178	32,027

E. S. TENNENT, Purchasing Agent

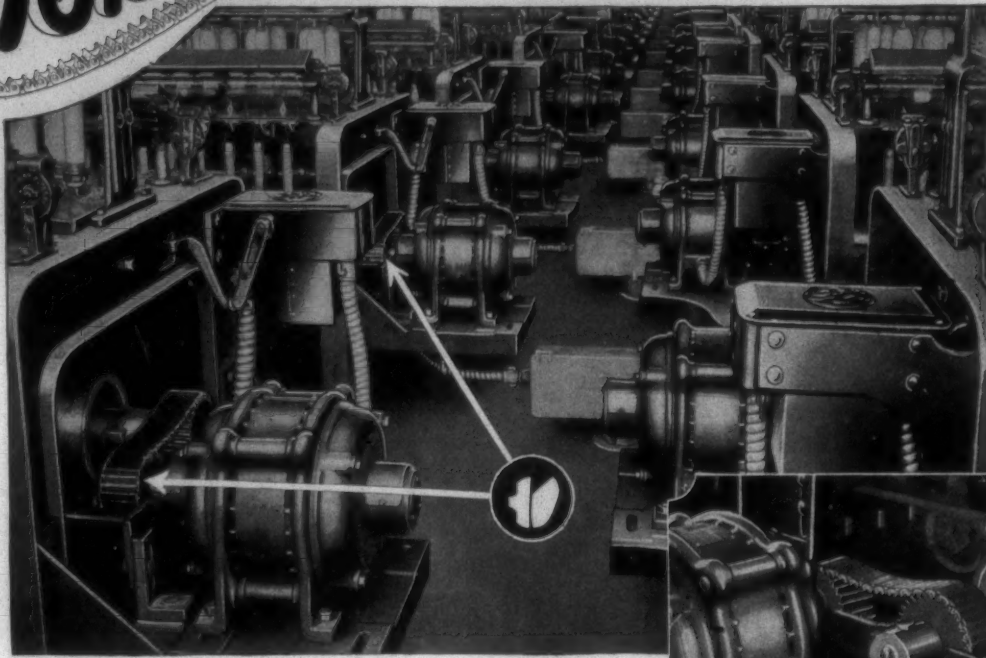
The following is a list of mills for which E. S. Tennent, of Spartanburg, S. C., does the buying:

	Spindles	Looms
Abbeville Cotton Mills, Abbeville, S. C.	29,696	970
Alexander Mfg. Co., Forest City, N. C.	15,840	400
Alma Mills, Gaffney, S. C.	20,240	440
Arcadia Mills, Arcadia, S. C.	33,952	1,162
Arista Mills Co., Winston-Salem, N. C.	17,500	446
Beaumont Mfg. Co., Spartanburg, S. C.	42,648	886
Bellwill Cotton Mills, Wilmington, N. C.	7,616	348
Bladenboro Cotton Mills, Bladenboro, N. C.	35,000	
Broad River Mills, Blacksburg, S. C.	14,000	324
Caraleigh Mills Co., Raleigh, N. C.	15,680	520
Chesnee Mills, Chesnee, S. C.	20,160	440
Cleghorn Mills, Rutherfordton, N. C.	7,328	
Clifton Mfg. Co., Clifton, S. C.	86,800	2,660
Clinchfield Mfg. Co., Marion, N. C.	65,520	1,600
Consolidated Textile Corp.		
Bonham Division, Bonham, Texas	15,776	433
Ella Division, Shelby, N. C.	11,328	253
Henderson Division, Henderson, Ky.	49,504	1,382
Lynchburg Division, Lynchburg, Va.	56,796	1,578
Ossipee Hopedale Division, Burlington, N. C.	18,728	369
Pelham Division, Pelham, Ga.	12,128	360
Pilot Division, Raleigh, N. C.	10,752	504
Union Division, LaFayette, Ga.	23,152	462
D. E. Converse Co., Glendale, S. C.	37,988	980
Darlington Mfg. Co., Darlington, S. C.	51,392	1,243
Deep River Mills, Randleman, N. C.	20,784	878
Erlanger Cotton Mills, Lexington, N. C.	46,000	1,240
Eureka Cotton Mills, Chester, S. C.	25,752	600
Fairmont Mfg. Co., Fairmont, S. C.	12,608	328
Florence Mills, Forest City, N. C.	19,920	536
Fort Mill Mfg. Co., Fort Mill, S. C.	42,000	1,249
Fountain Cotton Mills, Tarboro, N. C.	13,000	336
Gainesville Cotton Mills, Gainesville, Ga.	43,008	1,220
Griffin Mfg. Co., Griffin, Ga.	34,000	1,100
Hamrick Mills, Gaffney, S. C.	25,000	624
P. H. Hanes Knitting Co., Winston-Salem, N. C.		
Hart Cotton Mills, Tarboro, N. C.	18,000	224
Hartsville Cotton Mills, Hartsville, S. C.	38,280	880
Henrietta Mills, Caroleen, N. C.	48,416	1,059
Henrietta Mills, Cherokee Falls, S. C.	30,672	606
Henrietta Mills, Henrietta, N. C.	26,700	710
Holt-Granite-Puritan Mills Co., Fayetteville, N. C.	10,192	434
Holt-Granite-Puritan Mills Co., Haw River, N. C.	22,304	800
L. Banks Holt Mfg. Co., Graham, N. C.	29,100	1,052
E. M. Holt Plaid Mills, Burlington, N. C.		500
Inman Mills, Inman, S. C.	40,096	1,000
Kershaw Cotton Mills, Kershaw, S. C.	12,160	482
Kincaid Mfg. Co., Griffin, Ga.	48,800	1,672
Lancaster Cotton Mills, Lancaster, S. C.	139,608	3,006
Limestone Mills, Gaffney, S. C.	25,000	650
Lincoln Mills of Ala., Huntsville, Ala.	30,144	352
Lowe Mfg. Co., Huntsville, Ala.	27,000	756
Manville-Jenckes Co., Loray Mill, Gastonia, N. C.	140,000	320
Manville-Jenckes Co., High Shoals, N. C.	18,512	524
Marion Mfg. Co., Marion, N. C.	35,840	840
Marlboro Cotton Mill, Bennettsville, S. C.	15,000	
Marlboro Cotton Mill, McColl, S. C.	31,244	110
Mills Mill No. 2, Woodruff, S. C.	20,032	
Mollohon Mfg. Co., Newberry, S. C.	40,192	1,012
Musgrove Mills, Gaffney, S. C.	15,000	400
Oconee Mills Co., Westminster, S. C.	13,000	260
Pacolet Mfg. Co., New Holland, Ga.	58,804	1,765
Pacolet Mfg. Co., Pacolet, S. C.	77,128	2,080
Patterson Mills Co., Rosemary, N. C.	28,000	1,000
Pomona Mills, Greensboro, N. C.	24,416	798
Postex Mill, Post, Tex.	11,520	296
Rushton Cotton Mills, Griffin, Ga.	15,168	420
Saxon Mills, Spartanburg, S. C.	41,216	1,000
Spencer Mills, Spindale, N. C.	8,770	
Spindale Mills, Spindale, N. C.	10,488	
Springstein Mills, Chester, S. C.	14,560	570
Stonecutter Mills Co., Spindale, N. C.		504
Swift Mfg. Co., Columbus, Ga.	29,112	864

((Continued on Page 42))



SILENT CHAIN DRIVES



Some of the Morse Drives in Efrd Mfg. Co. Plant, Albemarle, N. C.

\$9,000 Yearly Saving in this Mill

C. G. Voss, Supt. Efrd Mfg. Co., Albemarle N. C., says:

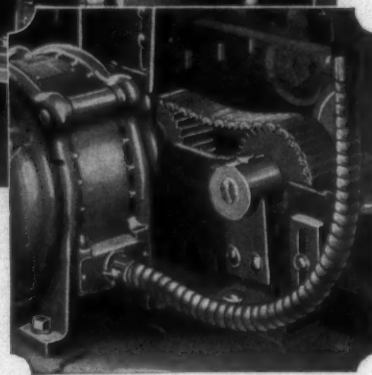
"Our Morse Chain Drives are one of the most profitable investments we ever made. We have been using these chains for seven years and now have one hundred and twenty 5 and 7½ H. P. drives on spinning frames, sixty-four 5 and 7½ H. P. drives on twisters, and four 10 and 20 H. P. group drives for carding machines.

"10% More Production"

"The most important result of installing these chains has been the absolute elimination of slip—a constant source of lost production where belts are used. We are now getting at least 10 per cent more production from each spinning frame and twister. Since there are a total of 184 of these machines, the 10 per cent increase is equivalent to saving the operating cost of about 18 machines, which we figure at \$8,347.50 a year.

"Cleaner Yarn Produced"

"The Morse Chains have also eliminated the loss due to fly and dirt from pulleys and belts getting into the work—a further saving of \$585.00 a year. More important than this saving is the



Close-up of drive to spinning frame

greater satisfaction of our customers, due to the cleaner yarn produced. Since installing Morse Chains we have yet to receive the first complaint on our yarn.

"Elimination of Pulsating Yarn"

"Another factor which increases quality is the elimination of pulsating yarn at the traveler which is a common cause of broken yarn when belts, with their varying speed, are used.

"Longer Life and Better Work"

"By eliminating belts we get a far better light, which makes working conditions more pleasant, and improves the quality of the work. Accidents, such as employees being caught in belts, belts breaking and striking someone, and pulleys breaking, are all impossible with a silent chain drive. The life of a belt on this work is not much over a year, but Morse Chains on our spinning frames lasted five years, and those on our twisters are still going after nearly seven years of steady service. Repair costs have been very reasonable. We feel justified because of our experience, in recommending Morse Chains for work such as ours."

MORSE CHAIN CO., ITHACA, N. Y.

There is a Morse Engineer near you

ATLANTA, GA.

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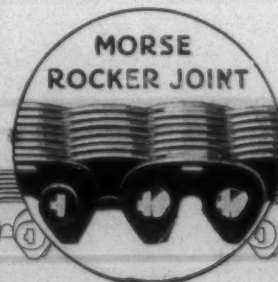
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Dufferin Street, Strong-Scott Mfg. Co.



PURCHASING AGENTS FOR SOUTHERN MILLS

(Continued from Page 40)

Victory Mfg. Co., Fayetteville, N. C.	14,336	490
Wade Mfg. Co., Wadesboro, N. C.	13,600	404
Washington Mills, Mayodan, N. C.	24,696	—
Washington Mills, Fries, Va.	77,000	1,750
Wenonah Cotton Mills Co., Lexington, N. C.	12,736	454
White-Williamson Co., Graham, N. C.	8,200	324
Whitney Mfg. Co., Whitney, S. C.	30,652	850
Williamson Mills Co., Charleston, S. C.	12,852	246
Total	2,370,142	57,335

LARGE SOUTHERN MILL CORPORATIONS

(Continued from Page 32)

60.—Trion Manufacturing Company, Trion, Ga.	60,960
61.—American Yarn & Processing Company, Mt. Holly and Maiden, N. C.	60,280
62.—Efird Manufacturing Company, Albemarle, N. C.	60,000
63.—Exposition Cotton Mills, Atlanta, Ga.	60,000
64.—Republic Cotton Mills, Great Falls, S. C.	58,848
65.—Dallas Manufacturing Company, Huntsville, Ala.	58,752
66.—Harriett Cotton Mills, Henderson, N. C.	57,792
67.—Meritas Mills, Columbus, Ga.	57,436
68.—Mooresville Cotton Mills, Mooresville, N. C.	57,000
69.—Greenwood Cotton Mills, Greenwood, S. C.	56,496
70.—Mills Mill, Greenville and Woodruff, S. C.	55,616
71.—Newnan Cotton Mills, Newnan, Ga.	54,000
72.—American Spinning Company, Greenville, S. C.	53,760
73.—Roanoke Mills Company, Roanoke Rapids, N. C.	53,000
74.—Judson Mills, Greenville, S. C.	52,864
75.—Darlington Manufacturing Company, Darlington, S. C.	51,392
76.—Dunee Mills, Greenville, S. C.	50,720
77.—Muscoogee Manufacturing Company, Columbus, Ga.	50,000
78.—Crown Cotton Mills, Dalton, Ga.	50,000
79.—Lane Cotton Mills, New Orleans, La.	50,000

WANT ADS

Wanted

Position as overseer spinning, spooling, twisting or winding by married man, age 33. Have been overseer past 9 years with best of record and habits. Best of reference from past record. Address S. D. G., care Southern Textile Bulletin.

J. A. Grun and Jack Morton

I desire to communicate with you at once regarding matter of interest to you. Address C. M. R., care Southern Textile Bulletin.

Equipment Wanted

Wanted—To buy roller shop covering equipment. Must be in good condition. Address Box P, Rockingham, N. C.

For Quick Sale, I Offer At Exceptionally Low Prices:

- 1 40" Saco-Pettee Breaker.
 - 2 Saco-Pettee Intermediates.
 - 2 Saco-Pettee Finishers.
 - 1 60-Spindle 12 x 6 Saco-Pettee Slubber.
 - 4 128-Spindle 8 x 4 Saco-Pettee Speeders.
 - 4 Whitin Spinning Frames, Medium Gravity Spindles.
 - 1 60-Spindle 4 x 6 Whitin Spooler.
 - 3 2½" Ring, 7" Traverse Draper Twisters.
 - 8 4½" Verticle Ring, 7½" Travis, tape drive Saco-Lowell Twisters.
 - 3 Lindsay Hyde Reels.
 - 2 Lowell Section Warpers, with balling attachment.
- Also have a large lot of 7", 9", and 11" Card Room Bobbins and Skewers for same and large lot of Draper and Whitin Spinning Bobbins. Have a few thousand 4 x 6 and 5 x 6 Spools.
- Textile Machinery Exchange**
P. O. Box 1355 Charlotte, N. C.

WANTED

Yarn Mill
To Spin
8 to 14's
2 to 6-Ply
5,000 Spindles
Address "Yarn Mill,"
Southern Textile Bulletin

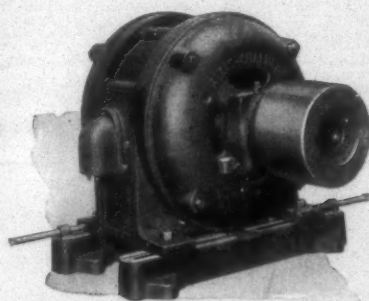
Spindle Plumbers

L. B. Mahaffrey and W. M. Mitchell, spindle plumbers. We work by the day or contract. We are now employed at Prendergast, Tenn. Home address, 224 Bankhead Ave., Atlanta, Ga.

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for Textile Service

Constant and Adjustable Speed



Type "AR"
Squirrel Cage
Motor

Type "AR" and "ARY" motors are designed with exceeding ruggedness, cast steel in place of cast iron being a prominent feature.

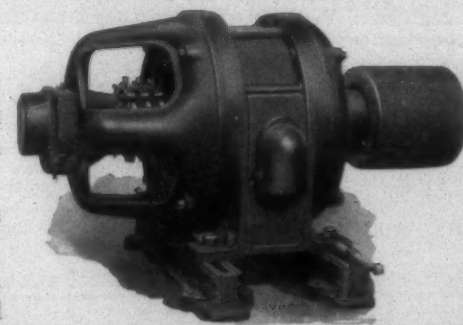
Method of ventilation is very effective resulting in even cooling and avoiding of "hot spots."

Bearings are of liberal design with spacious oil-wells.

Insulation is of highest grade, stator being treated with baked-on insulating varnish making the whole structure dust and moisture proof.

Motors are for floor or ceiling mounting being provided with very stiff and substantial rails.

Conduit terminal boxes are regular equipment.



Type "ARY"
Slip Ring
Motor

Send for Bulletin



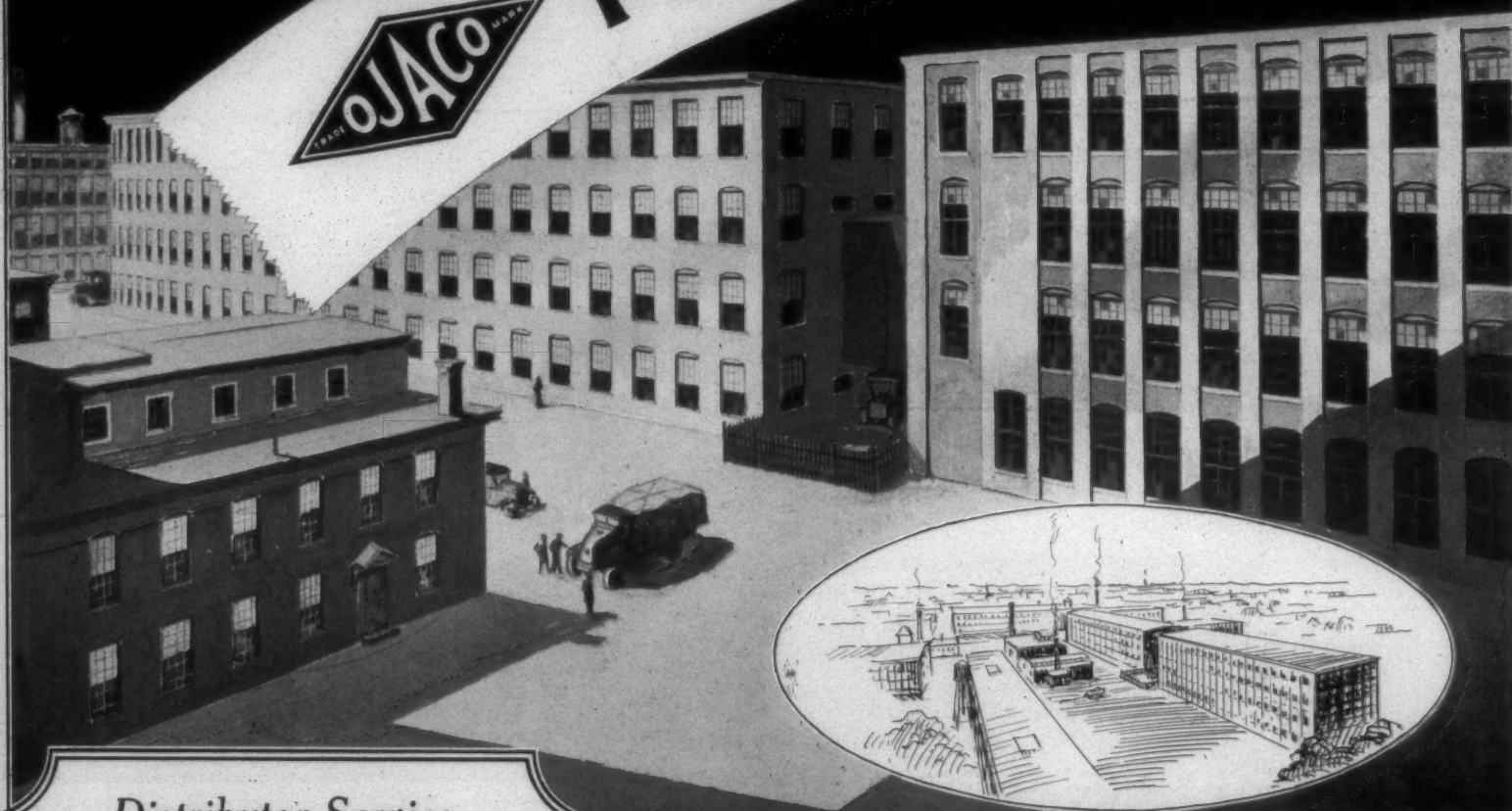
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Making Mill Walls Work

THE U. S. Bunting Company, manufacturers of worsted men's wear and bunting, makes its plant interior augment the productive efforts of men and machinery.

Throughout the great mills pictured above, this is accomplished most effectively by walls and ceilings painted with OJACO Mill White.

Daylight and artificial light are now refracted and evenly diffused, insuring adequate illumination for the entire working area.

For further details concerning OJACO Mill White, consult the nearest OJACO distributor listed opposite, or write to us direct,

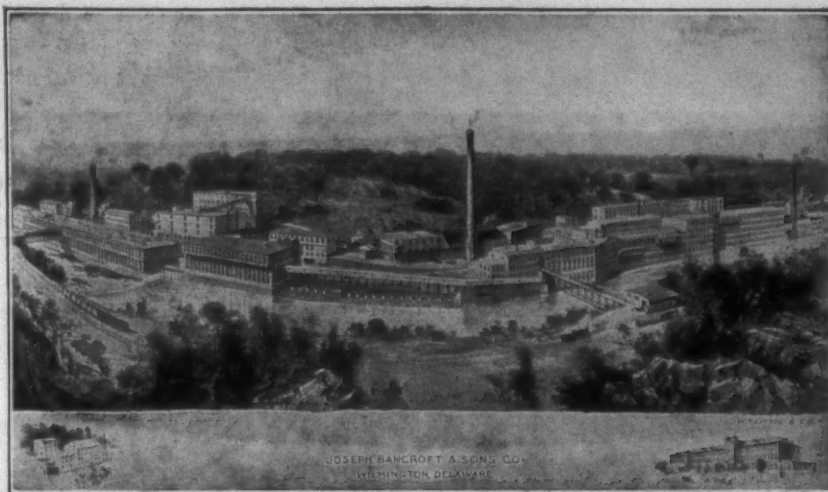
Oliver Johnson & Co., Inc.

Paint Makers since 1833
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1831

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Joseph Bancroft & Sons Company

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Bleachers, Dyers, and Finishers
of
Cotton Piece Goods

SOUTHERN COTTON MILL GROUPS

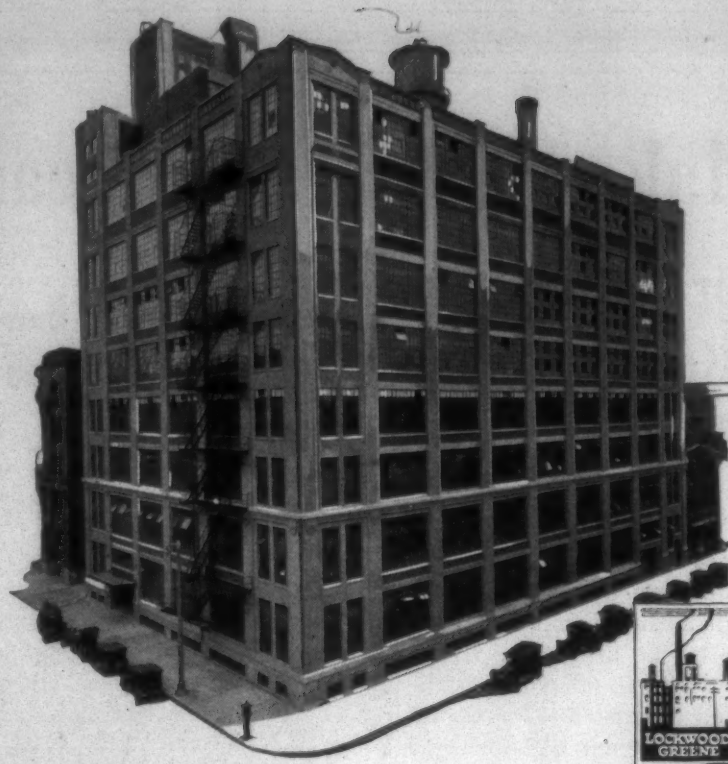
(Continued from Page 24)

42.—H. A. Ligon Group, Mills and Arcadia	99,532
43.—W. C. Hamrick Group, Limestone, Hamrick, Alma, Musgrove, and Broad River	99,240
44.—Martel Group, Martel Mills (8), and Ashcraft	97,528
45.—Hart Group, Hart, Fountain, and Clinchfield	96,520
46.—Mt. Vernon-Woodbury Mills	94,992
47.—Alex Long Group, Aragon, Arcade, Industrial, and Baldwin	92,458
48.—Bailey Group, Clinton and Lydia	92,356
49.—C. C. Twitty Group, Darlington and Hartsville	89,672
50.—Clifton Manufacturing Company, Clifton, S. C.	86,800
51.—Bemis Brothers Bag Company	86,164
52.—Brookside Mills, Knoxville, Tenn.	82,408
53.—J. C. Self Group, Greenwood and Ninety-Six	80,688
54.—Sanders Group, Montgomery, Aponaug, Cotton Mill Products, and Yazoo	79,618
55.—J. P. Abney Group, Grendel and Panola	79,552
56.—E. W. Swift Group, Muscogee, and Swift Spinning	77,132
57.—Dwight Manufacturing Company	74,492
58.—Ellison A. Smyth Group, Belton and Balfour	73,000
59.—Glenn-Lowry Manufacturing Company	71,000
60.—F. W. Poe Manufacturing Company	70,354
61.—Piedmont Manufacturing Company, Piedmont, S. C.	69,412
62.—Hagood Group, Glenwood and Pickens	69,016
63.—Durham Hosiery Mills	68,966
64.—Claud Gore Group, Marlboro, Raeford, and Great Falls	66,744
65.—Eagle and Phoenix Mills	65,557
66.—Clinchfield Manufacturing Company, Marion	65,520
67.—McNair-Fairley Group, Dickson, Scotland, Prince, and Waverly	65,000
68.—Cramerton Mills, Inc.	65,000
69.—Jno. P. King Manufacturing Company	64,608
70.—Entwistle Group, Entwistle, and Pee Dee	63,872
71.—Columbus Manufacturing Company	63,840
72.—John A. Law Group, Saxon and Chesnee	61,376
73.—Cliffside Mills	61,280
74.—L. D. Tyson Group, Knoxville Cotton and Knoxville Spinning	60,288
75.—C. E. Hutchison Group, American Yarn and Processing Company	60,280
76.—Exposition Cotton Mills	60,000
77.—Republic Cotton Mills	58,848
78.—Dallas Manufacturing Company	58,752
79.—Geo. Wright Group, Watts and Banna	57,424
80.—Mooresville Cotton Mills	57,000
81.—H. B. Jennings, Dresden, Jennings, and Lumberton	56,696
82.—Newnan Cotton Mills	54,000
83.—American Spinning Company	53,760
84.—Robert E. Ligon Group, Gluck and Equinox	53,704
85.—Judson Mills	52,864
86.—Russell Group, Russell, Bettie Francis, Roberta, Rusco and Russecony	51,840
87.—Finley Williamson Group, Holt, Granite-Puritan, and Williamson	51,348
88.—W. L. Gassaway Group, Issaqueena and Courtney	51,024
89.—Dunean Mills	50,724
90.—Crown Cotton Mills	50,000
91.—Lane Cotton Mills	50,000

GARLAND
LOOM PICKERS *and*
LOOM HARNESSES



GARLAND MFG. CO., SACO, MAINE



Building with foresight.

A Model Manufacturing Efficiency

THIS is the new dye-house and finishing building of the Phoenix Hosiery Company at Milwaukee, one of the largest single units in the country devoted entirely to hosiery finishing. The building is a model of manufacturing efficiency.

Location of the dye-house at the top of the building assures a maximum of natural light and ample ventilation, and keeps the vapor and fumes from other parts of the building. Stock is raised at one lift from the undyed stockroom in the basement to the dye-house on the seventh and eighth floors, and then is carried by gravity to the other operations on the floors below.

Boarding, mating and boxing rooms are located on the fourth, fifth and sixth floors, so arranged as to provide a minimum amount of handling of boarded goods.

Meeting difficulties, and in many cases turning them to advantage, is one part of the service of Lockwood, Greene & Co. In overcoming the obstacles encountered in designing the Phoenix Hosiery building, Lockwood, Greene & Co. were aided by years of experience as textile mill engineers and managers. More detailed information about this building and others of equal interest will be provided on request. A Lockwood-Greene representative will be glad to call and discuss your own building problems.

LOCKWOOD, GREENE & CO. ENGINEERS

EXECUTIVE OFFICES, 24 Federal Street, BOSTON

BOSTON ATLANTA CHICAGO NEW YORK
DETROIT CLEVELAND CHARLOTTE SPARTANBURG

Lockwood, Greene & Co. of Canada, Limited, Montreal
Compagnie Lockwood Greene, Paris, France

Dyeing Cotton Piece Goods in the Jig

By Louis J. Matos)

Make 1924 a Cheap Year

For Cleaning Roving Bobbins

During 1923 a number of mills substantially reduced their cost of cleaning roving bobbins by installing Termaco machines.

A Termaco not only cleans bobbins more quickly than the hand cleaning method but it adds to the life of the bobbins. The waste is not cut off but is carded off and is kept together where it cannot be blown about the mill.

Mills have found that the Termaco easily cleans upwards of 30,000 roving bobbins each working day.

With a Termaco your mill can make 1924 a year remarkable for its lowered cost of cleaning bobbins.

The Termaco gives uninterrupted service year after year. Ball bearings are used on all high speed shafting, all gears are cut gears. Heat treated steel parts are used where necessary for long life; each machine is built with only the best material and by the most skilled workmen. Each part is made in jigs and templates to afford perfect and rapid interchangeability of parts.

There are no exposed gears which might catch hold of clothing or injure a careless operator. Anyone with slight mechanical knowledge can keep a Termaco in perfect operating condition and anyone who can drop a letter in a mail box can be taught to feed roving bobbins into the machine.

The cost of operating and maintenance is a negligible item in comparison with the savings effected by the machine.

Write our Engineering Department today for full details regarding the Termaco and the lowered cost for bobbin cleaning it will effect for your particular mill. Such information will not obligate you in any way whatsoever.



Every machine trademarked "TERMACO" is sold under a binding guarantee as to workmanship, material and operation.

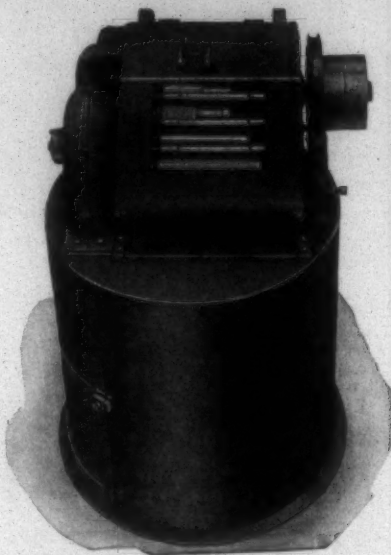
The TERRELL MACHINE CO., Inc.

Engineering Department

Charlotte, N. C.

General Supply Co., Danielson, Conn., Representative for N. Y. & N. E.

(Complete stock of parts at all times carried by northern representative)



Copyright, 1924, by National Aniline & Chemical Co., Inc.)

JIG dyeing offers certain well defined advantages over other methods of piece goods dyeing, particularly for cottons, as not to permit of ready comparison. It is true that where output or yardage is a matter of first consideration, the use of continuous dyeing machines is desirable, but where superior results, including uniformity of shade, penetration, fastness to washing and rubbing are desired, the jig dyeing method offers advantages that are not possessed by the former method.

In continuous dyeing, an indefinite number of yards of cloth may pass through a solution that is maintained at constant volume by regular additions of one or more stock dye solutions, until all the cloth is dyed. In jig dyeing, a definite amount of cloth is dyed with a definite amount of dyestuff in a volume of liquor that may fluctuate within narrow limits. This feature permits a wide range of shades on relatively small lots of cloth, an advantage in many instances where mills cater to mixed case lots.

Preparation of cloth for jig dyeing requires that the pieces be kier boiled or otherwise freed from all size or dressing. If kier boiling is not used, recourse is had to "malt-ing." Whatever method is adopted, the pieces should be thoroughly freed from all traces of size, or else uneven dyeings will result. For light and bright shades, the goods are first bleached, and here the washing after bleaching must be so thorough that all traces of bleaching chemicals are removed, otherwise unevenness in shade will result.

When the pieces are delivered to the dyehouse, they should be rolled as quickly as circumstances permit, and then sent to the jigs. Dyeing should be commenced at once.

In the case of mercerized goods that are to be jig dyed, the greater cause of unevenness in the resulting shade is due to unequal action of the caustic mercerizing liquors on the fabric, and as a rule, not to other causes. Uneven shades, showing as darker or lighter patches irregularly distributed over the piece, are sometimes credited to the selective influences of the dyes used, or to their incomplete solution; these latter causes, however, occur but seldom.

The addition of the dye solution to the beck should be so divided that the piece receives the color evenly.

The choice of dyes is important. Preference is given to those that dissolve easily, and dye level, besides possessing those properties or qualities desired in the finished goods according to their ultimate use, such as fastness to light, washing, ironing, etc.

Most cotton piece goods that are jig dyed are colored with the direct dyes, while it is not unusual for other classes of dyes to be used, such as those requiring diazotizing and developing, as well as sulfur dyes.

Kier boiling of the grey pieces is well known and requires no mention; malting, however, is not as

frequently used as it might be, especially since it is convenient to operate. For pieces to be jig dyed, they are impregnated with the malt solution, heated to almost 160 degrees F., and then while still on the roll, covered, and allowed to lie for several hours, or preferably over night. In the morning, the pieces are washed clean, when they are ready for dyeing. The strength of the malt solution may vary according to the character of the goods, and the approximate amount of size present. As a rule, the proportion of malt may vary from 1½ to 3 ounces for each ten gallons of water. Malting is of particular value in de-sizing pile fabrics such as corduroys and velveteens, on account of conserving the face of the goods.

Some classes of cotton goods are readily prepared for jig dyeing by boiling out in a solution of

10 to 12 pounds soda ash.

and 5 pounds soluble oil

for each 500 gallons of water. In most cases, the cloth may be taken directly from the boil out and dyed at once without any intermediate work. Actual kier boiling, however, is desirable.

Jig dyeing with direct dyes is simple. The jig used may be single or double, according to the quantity of material to be dyed the given shade. The amount of cloth may be sufficient for one case—a convenient lot. The water is run in, and one-half the estimated amount of dyestuff, previously dissolved, is added and the roll of pieces started through. Just before the return wind, the remaining portion of the dissolved dyestuff is poured in, and the pieces again passed through. At the end of each subsequent run, Glauber's salt in equal portions is added, and the pieces kept in motion until the proper depth and tone are reached. If shading dyes are necessary, they must be dissolved and always added in two equal portions.

When dyeing cotton fabrics with direct or sulfur dyes, the question of standing kettles is present, and is entitled to consideration on account of the probable saving in the cost of dyestuff for the particular shade dyed. For light and medium shades, however, the saving effected by using a spent kettle is so slight as to be ignored. For many shades, on the other hand, from one-third to one-fourth the original amount of dye used remains in the spent bath, and, of course, it is desirable to make use of it in building the shade in the succeeding batch of goods.

Assume that the roll of cloth weighs 200 pounds, and is dyed with 6 per cent or 12 pounds of dye. Since about 3 pounds of dye may remain in the bath, this amount is too small to take into consideration in calculating the amount of dye for the second and succeeding lots to be dyed, and it is better to run it off, than to take any risk in producing off-shades that may be thrown back on the mill for redyeing or to be sold as seconds. As a rule, the residual dye in the bath figures out but a small fraction of a cent on the

finished cost of the cloth, and can well be charged up with the total amount of dye originally taken. This is the usual practice for fancy and mode shades when dyed with products that are relatively high in cost, rather than save the kettle for further use.

Dyeing cotton cloth with sulfur dyes requires the use of iron jigs on account of the action of chemicals used on other structural material. For occasional lots of standard shades, the ordinary jig or padding jig may be used, and if the dye used is not a mixture, continuous runs may be made, but if the shade results from mixing several dyes, there is some risk of separate batches not exactly matching, although they may be remarkably close in shade.—Reprinted by permission from "Dyestuffs."

Says Rhode Island Curtailment is Due to Southern Competition.

Providence, R. I.—"The cotton mills in Rhode Island are being steadily forced out of business. While it is true that a few manufacturers, more fortunate than the average, are still making a go of it, the cotton industry in Rhode Island, as a whole, is fighting Southern competition with its back against the wall. Today many of our cotton manufacturers would rather have a protective tariff against the South than against England."

These were among the significant statements made by Frank E. Richmond, president of the Crompton Company, and retiring president of the Rhode Island Textile Association, at that organization's annual meeting and dinner at the Providence Biltmore Hotel. This event, one of the largest gatherings of its kind in New England each year, was attended by approximately 400 mill executives, and with few exceptions, every textile corporation which is a member of the association was represented. Mr. Richmond was one of several speakers at the banquet.

"Four months ago a man advertised in the New York Journal of Commerce that he wanted to purchase a second hand mill in New England," Mr. Richmond continued. "He left his advertisement in one week with the result that he was offered 56 mills at prices averaging 25 per cent of their replacement value."

"At a time like this it is almost inconceivable that any one in this State would want to add a single extra burden to an industry that is making a fight against almost hopeless odds, yet many legislators—men whose business it is to look after the welfare of Rhode Island—right now are trying to do this very thing. They are trying to reduce the working hours that a mill may run by 12 per cent. These same legislators seem to forget that when they hit its manufacturers they also hit 32,000 wage earners employed in the cotton mills in this State."

"Last year we were fortunate in that a man, prominent in Rhode Island affairs and not a cotton manufacturer, felt that the menace to the cotton industry was so serious a matter for this State that he personally thoroughly investigated the

situation and then told the people of Rhode Island the facts as he found them. I believe that his statements were of more value in educating the people as to the truth than all the efforts of the textile manufacturers put together. I refer to Frederick S. Sibley.

"Would that this year some four or five men of high standing, prominent in the community and not engaged in the textile industry, men who cherish the welfare of Rhode Island—would also take the time and trouble to investigate this question and report their findings to our people and our Legislature."

"Then I believe that those Legislators who today are fearful lest information furnished by textile manufacturers may be biased, would quickly change their viewpoint and seek to co-operate with and aid Rhode Island's largest industry."

Theophile Guerin, the new president, said: "I take advantage of this opportunity to briefly thank you for the honor that has been conferred upon me and during the coming year I shall endeavor to justify your implied faith and confidence. To my mind, there never has been a time in the textile industry of Rhode Island when close co-operation and harmony between the Rhode Island textile men was more necessary."

"These many problems—economic, political and social—with which we have been confronted, have been the basis of considerable thought on my part during the past few years and I shall welcome the opportunity to cope with these difficulties, and, with your aid and support, endeavor to accomplish their solution."

"I do not know what the feeling of the rest of you has been, but the Rhode Island Textile Association, ever since its inception, has been a source of inspiration and help to me. It has been the means of bringing us together in a spirit of mutual help and I can truthfully say that I have many times profited by your suggestions and ideas. I believe the association has a real purpose and place in our midst and I only hope that it will continue to be as useful to me and to all of you as it has been in the past."

Spinning Activity for December Takes Drop.

Washington, Jan. 21.—Cotton spinning activity had a marked decline in December, the Census Bureau's monthly report, issued today, showing a decrease of 875,000,000 in the number of active spindle hours as compared with November. The total was the lowest since July.

Active spindle hours for December totalled 7,139,371,847 or an average of 190 hours per spindle in place, compared with 8,014,579,167, or an average of 213 in November.

Spinning spindle in place December 31 totalled 37,635,709, of which 34,044,870 were active at some time during the month, compared with 37,585,049 on November 30, of which 34,104,452 were active at some time during November.

The average number of spindles operated during December was 32,674,471, or at 86.6 per cent capacity.

Claims — or Results?

All kinds of claims may be made about the good points of a fuse. But the things that talk loudest are its ability to stand up under blowouts, and construction that makes renewal easy.

'UNION' Renewable Fuses

are daily demonstrating their ability to withstand more blowouts than any other make. And comparison quickly proves they're the easiest and quickest fuses to renew. Hence the

"Union" Saves More Than ANY Other Renewable Fuse

Approved by Underwriters' Laboratories.
Sold by leading dealers and jobbers.

Write for Catalog

Chicago Fuse Mfg. Co.

Manufacturers also of Switch and Outlet Boxes, Cut-Out Bases, Fuse Plugs, Fuse Wire and Automobile Fuses.

CHICAGO NEW YORK



REG. U.S.
PAT. OFF.



Saco-Lowell Shops 100 Years Old

FOUNDED in 1824, the Saco-Lowell Shops, the oldest builders of textile machinery in America, celebrate their one hundredth anniversary, rounding out a full century of continuous business and progress.

The history of these builders of cotton mill and other textile machinery is almost a history of the development and growth of the cotton manufacturing industry of America. The early struggles, a century ago, of the newly independent American colonists, to supply themselves with clothing, led them to the building of cotton mills, and, their inability to get their requirements in machinery and equipment elsewhere, forced them to organize shops to build their own machinery. The history of these shops is more than an account of how an individual business grew and prospered, for it is tied up with the very foundation of the American textile industry.

It begins ten years before the first mill was built on the Merrimack River, when the city of Lowell was still the tiny village of East Chelmsford, with a population of a scant two hundred white settlers, and when Francis Cabot Lowell had just returned from England with the bold scheme for building a cotton mill in America.

In 1814, Francis Cabot Lowell, with the assistance of the mechanical genius of Paul Moody, began to build the machinery for the newly organized Boston Manufacturing Company at Waltham. The difficulties to be overcome by the new enterprise were enormous. Not only had the machinery for the mill to be constructed from the patterns Lowell had managed to bring from England, pieced out by his memory

and ingenuity, but the very machines for constructing this new machinery had first to be devised and set up. These men, besides their knowledge of English methods, had an understanding of the mathematical principles involved in the construction of machinery, which at that time was probably unparalleled in the Western Hemisphere. They built the entire equipment for this mill, and incidentally constructed a power loom, undoubtedly their most notable achievement. This was the first mill in the world, where the whole process of cotton manufacturing, from the spinning to the weaving, was completed under one roof.

When the machinery for the Waltham Mill was completed, Moody turned his attention to the improvement of special adjustments, and the invention of new machines for particular processes. Many of his patents have become permanently incorporated in textile machinery, while others prepared the way for later inventions. In addition to this work, and the regular building and repairing of machinery for the Waltham Mill, Moody developed a large business in supplying other cotton mills that were beginning to spring up.

About 1823, he became interested with Patrick Tracy Jackson, Nathan Appleton and Kirk Boott (all names famous in cotton mill history) for setting up mills at East Chelmsford (later Lowell), which would utilize the power of the Merrimack River. The machinery for the new company's first mills was built by Moody at Waltham, but when it became evident that the immense water power at East Chelmsford would soon be applied to other mills, and

that machinery for these could be built more advantageously on the spot, it was decided to establish there a machine shop on a large scale. The Merrimack Manufacturing Company decided to build another mill, and paid the Boston Manufacturing Company \$75,000 to release Moody and to allow the use of its patterns and patent rights.

Moody moved to East Chelmsford and started the machine shop in 1824. From that time until his death in 1831, most of the machinery used by the Lowell mills was built and set up under his supervision.

In 1825, upon the completion of the machinery for the Merrimack Manufacturing Company, the shop was sold to the proprietors of the locks and canals on the Merrimack River, with Kirk Boott as agent and treasurer and Moody as superintendent. They undertook the building of many kinds of machinery, besides textile machinery. The Swain turbine water wheel was the invention of one of the employees and was first manufactured here. The first American locomotives were also made at this shop.

For about twenty years, the shop continued to be owned and operated by the locks and canals, but in 1845 was sold to a new company organized by Abbott Lawrence, Nathan Appleton and John Lowell, incorporated as the Lowell Machine Shop, with an authorized capital of \$500,000. It was their aim to provide complete equipment for cotton mills, picking, carding, spinning and looms, water wheels, gearing and shafting. They continued for several years to build steam boilers, locomotives, machine tools, and paper machinery.

In 1898, the Lowell Shop built its

first worsted machinery, in time building a complete line, and in 1922 began to build the French worsted style of machinery. The shop was again the pioneer in a new industrial field when in 1908 they began to build silk spinning machinery and now include the manufacture of practically all the preparatory machinery for spun silk.

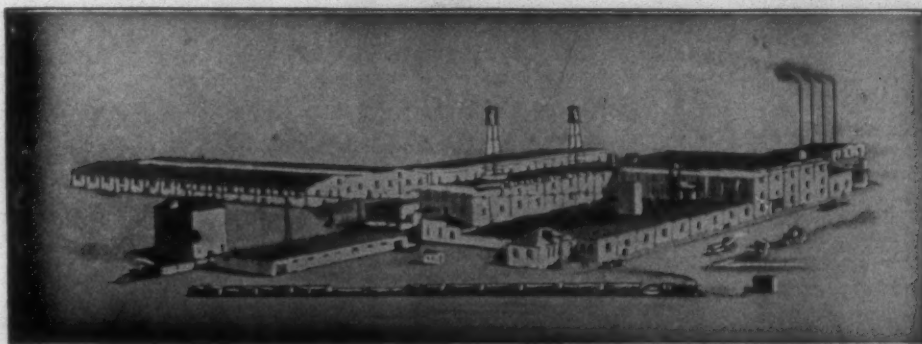
The Lowell Machine Shop combined with the Saco-Pettee Company in 1912, forming the Saco-Lowell Shops, with headquarters in Boston.

The organization of the Lowell Shop was directly the outgrowth of an effort to build cotton mills which could not get their machinery equipments from abroad. Similarly, this same condition led to the organization of the textile machinery shops at Newton Upper Falls, Mass., and Biddeford, Me., now both part of the Saco-Lowell Shops.

The Elliott Manufacturing Company, in 1814, bought a water power at Newton Upper Falls, on which there had been a saw-mill, then a grist mill and finally a snuff mill. They proposed to build a cotton factory there. This led to the building of textile machinery at Newton Upper Falls.

Ignorance of English inventions and practices, difficulties of transportation and lack of trained workmen, all had to be overcome. In common with other mills of the period, this new company had to begin, literally at the beginning, by building its own machinery in its own machine shop. The small cotton mill built under these conditions, in 1819 was put in charge of Otis Pettee, the son of a blacksmith and gunsmith, who here gained his cotton mill experience which coupled with mechanical ability, made

VICTOR MILL STARCH – The Weaver's Friend



It boils thin, penetrates the warps and carries the weight into cloth. It means good running work, satisfied help and one hundred per cent production.

We are in a position now to offer prompt shipments.

THE KEEVER STARCH COMPANY

COLUMBUS, OHIO

DANIEL H. WALLACE, Southern Agent, Greenville, S. C.

C. B. ILER, Greenville, S. C.

O. F. BURGESS, Charlotte, N. C.

him famous as a builder of machinery. So excellent was the machinery constructed under his direction, that the shops of the company, after completing the equipment of their own mills, began to turn out orders for other new factories which were growing up in New England.

Such a contract, undertaken for the Jackson Company ("Indian Head Mills"), Nashua, N. H., was a large one for those days and the Elliott Company became discouraged and cancelled the contract, turning it over to Otis Pettee, who assumed responsibility for it and completed it, and in congratulation, was presented with a silver service inscribed: "Presented to Otis Pettee by the Jackson Company in token of their appreciation of the machinery he built for their mills in the year 1831."

As a result of this contract, in 1832 Otis Pettee bought a water power site here at Newton Upper Falls and built his first shop, the foundation of the Pettee Machine Works. He later, in 1840, bought the cotton mill of the Elliott Manufacturing Company, put in 250 new looms and built it up to be the largest producer of cotton cloth in New England.

About 1837, Pettee made his first shipment of machinery to Mexico, and a little later to South America.

After the death of Otis Pettee in 1853, his sons and his son-in-law, Henry Billings, formed a partnership under the name of Otis Pettee & Co. In 1882, it was organized as a company under the name Pettee Machine Works, with Billings as president and R. P. Snelling, treasurer.

About this time a revolution was taking place in cotton carding machinery. The Pettee Works sent representatives to England to study developments and in 1887 placed the first revolving flat cards to be built in this country in the Jackson Company, Nashua. It is interesting to note that these first cards of so radical a design were placed in the mill which had played such an important part in the history of Pettee.

The first of these cards turned out, after running thirty-three years in the Jackson Mill, can now be seen in the experimental room of this shop at Newton, still in fairly good condition.

This company, prior to 1890, put out a variety of machinery, including cards, drawing frames, railway heads, speeders, roving frames and looms. But the growth of the revolving flat card business led to a concentration on the building of cards, drawing frames and railway heads.

In 1897, the Pettee Machine Works consolidated with the Saco Water Power Machine Company, Biddeford, Me., under the name of Saco-Pettee Machine Shops, with James McMullan, president; R. P. Snelling, treasurer, and F. J. Hale, general agent. This consolidation gave these shops a complete line of carding and spinning machinery. They were consolidated in 1912 with the Lowell Machine Shop into the Saco-Lowell Shops.

Just as the Lowell and the Newton shops grew out of the requirements of newly organized cotton mills for machinery which they could not get

otherwise, so grew up the Biddeford shop of the Saco-Lowell Shops.

The towns of Saco and Biddeford, Me., had been ship building, ship-ping and merchandising communities. The embargo of 1812 struck the first blow at American shipping. These communities turned to manufacturing, and to their greatest need, nails, spikes, hoops, and later to cloth. Sir William Pepperell and Colonel Cutts, in 1811, entered into a partnership for the manufacture of nails, spikes and hoops. The Saco Iron Works, as the new firm was called, built a shop in Saco, and in 1825 this was taken over by the Saco Manufacturing Company, newly formed for the manufacture of cotton textiles, and proceeded to build a mill of 12,000 spindles and 300 looms. This was no small undertaking, when in addition to building the mill and doing the general engineering work connected with it, the owners had to build themselves all the machinery necessary for equipping the plant, much of which had to be designed complete.

This plant was destroyed by fire in 1830, but rebuilt in 1831, and re-organized under the name of the York Manufacturing Company. They continued to build machinery and in 1839 organized a separate company to build textile machinery, under the name of the Saco Water Power Company. The first contract of this new company was to erect a mill and furnish machinery for the Laconia Company, Biddeford, in 1844, and for the Pepperell Manufacturing Company.

This was before the days of intensive specialization. The company had been organized to build factories as well as to equip them with machinery, but after the Civil War came a call for more progressive and intensive methods, and the company was reorganized on a basis of manufacturing textile machinery only, under the name of the Saco Water Power Machine Shop. This company in turn was consolidated into the Saco-Pettee Machine Shops in 1897, and finally into the Saco-Lowell Shops, in 1912.

Another component part of the Saco-Lowell Shops is the former Kitson Machine Shops. This shop was taken over by the Lowell Machine Shop in 1905, then came into Saco-Lowell in 1912. The Kitson Shop was organized in 1849 by Richard Kitson, an Englishman, in Lowell, first for manufacturing card clothing, but he soon turned his attention to picking machinery. His first real invention came in 1852 when he devised a single cotton opener.

He confined his product to opening and picking. By 1874 the business had grown to such proportions that the shop was incorporated under the name of the Kitson Machine Company. Richard Kitson was president until his death in 1885. He had an able lieutenant in Haven C. Perham, treasurer. The name was changed to Kitson Machine Shop in 1905, when it came under control of the Lowell Shop, Mr. Perham becoming also treasurer of Lowell.

Until the last two decades, the textile industry was concentrated largely in New England, but within that time there has been a tremendous

(Continued on Page 50)

Chauncey A. Williams

Manufacturers of

MADE
IN
U. S. A.



BY
AMERICAN
LABOR

LATCH

No Gauge
Too Coarse

No Gauge
Too Fine

NEEDLES

**BUILT BY AN ORGANIZATION WITH OVER FIFTY
YEARS OF EXCLUSIVE LATCH NEEDLE
EXPERIENCE**

A Latch Needle is no better than the Rivet.

**Our New Screw Rivet is produced and rivet holes
tapped within variations of 1-10 of 1-1000 inch.**

This assures uniformity heretofore not thought possible.

**Smoothness—Temper—Accuracy of
Dimensions**

**All Represent Individual Inspections Our Product
Receives**

GENERAL OFFICES AND FACTORIES

MANCHESTER, N. H.

Philadelphia Office: 40 So. 7th Street, Rooms 304 and 305

Southern Office: Charlotte, N. C.

The Southern Textile Social Service Association.

The following outline of the past history of the Southern Textile Social Service Association has just been issued:

Organized in the fall of 1918. Five annual meetings held, in order: Greenville, S. C., Spartanburg, S. C., Rock Hill, S. C., Gastonia, N. C., and Greensboro, N. C. The number in attendance has varied from 60 to 200 representing practically all the larger Southern mills. The support was through a nominal registration fee. The activities of the organization have been confined to the annual conventions but these have been helpful, affording discussion of common problems, exchanging of ideas, hearing inspirational talks by executives and social service authorities. However, it was felt at the last convention that the association should be more active throughout the year and a more substantial organization should be developed.

The first step toward enlarged activity was the establishment of zones throughout the South in order to enable more frequent meetings of social service workers. The present plan calls for a one day zone meeting each fall and spring. One object of the zone meetings is to give each zone specific problems to discuss and present to the annual convention. Also in the zone meetings an opportunity is offered for discussion of problems peculiar to the section included by the zone boundaries.

The proposed program calls also for periodic exchange of ideas and

information by the groups of nurses, teachers, general workers, etc.—these exchanges to be handled through the group chairmen and the association secretary. Articles relative to their work or ideas are to be written by members of the association for the textile periodicals.

A plan for closer co-operation between the association and the mill executives is to be effected to insure more efficient and valuable service.

The association has the endorsement of the American Cotton Manufacturers Association as shown in the following letter from W. D. Adams, secretary of the association, to M. W. Heiss, of Greensboro, president of the Southern Textile Social Service Association:

"I beg to advise herewith that the Board of Governors of our American Cotton Manufacturers Association, at its mid-winter session in Greenville, S. C., following your personal appearance before it, passed a resolution commending to our members the work which your association is doing and your plans for its further strengthening. It was the sentiment of our board that the individual mills throughout the South should accord to the Southern Textile Social Service Association their support, by sending their representatives to your zone meetings, and also to your annual conventions; likewise, by rendering such financial assistance as in their judgment might seem warranted.

"In this connection, our board likewise felt that special effort should be made on your part to secure the attendance of as many mill executives at your conventions as

possible. In their judgment, the work which you are doing, in order to be of value, must be practical, and if you are able, through the counsel and co-operation of representative mill executives, to carry forward such constructive effort as that planned, on a broad and practical plan, it will be helpful to all concerned.

"Your personal remarks before our board indicated that you were working along these lines, and I hope that in the future special effort will be made in this direction."

Textile Exports From Great Britain to U. S. Increased During 1923.

London.—Large increases in the exports of textiles from the United Kingdom to the United States form one of the outstanding features of British trade during 1923. In practically all sections of the trade increases are noted with the exception of one or two cases of minor importance.

Commenting with the most important industry of all, so far as the textile trade is concerned, the cotton trade, a decrease is noted in the shipments of bleached and dyed cotton yarns to America during the year, the total amounting to only 275,500 pounds, compared with 479,400 pounds in 1922. On the other hand, the exports of unbleached cotton yarns have risen from 4,795,100 pounds to 5,136,300 pounds.

This latter increase is also reflected in the exports of gray unbleached cotton piece goods. The exports under this heading have risen from 16,000,000 in 1921 to 112,-

000,000 square yards in 1923. This, therefore, constitutes one of the most important features of this section of the cotton trade, for, generally speaking, there has been a decline in the exports of these goods amounting to nearly 220,000,000 square yards during the past year.

The total shipments of printed cotton piece goods to America during 1923 are put at 5,800,000 square yards, which compares with 5,768,000 square yards last year. An increase of about the same ratio is seen in the shipments of dyed piece goods, which amounted to 44,880,000 square yards during the year. The total for piece goods of all kinds shipped to America during 1923 amounts to 174,922,200 square yards, which compares favorably with the previous year's total of 95,384,000 square yards.

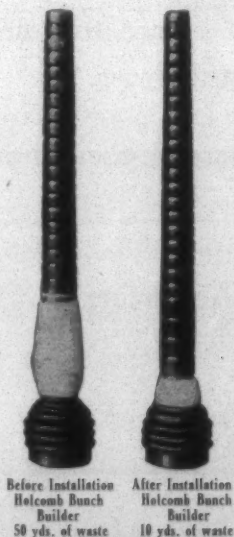
Shipments of flags, handkerchiefs and shawls, not in the piece, have declined from 1,890,000 to 1,607,300 square yards.

No striking change is reported in the exports of worsted yarns, although the total shipped from the United Kingdom dropped from nearly 43,000,000 pounds to 34,920,000 pounds last year. The shipments to America in the same period increased from 565,300 pounds to 937,400 pounds. This latter total is still, however, much below that of 1921, which was 2,010,200 pounds.

Worsteds piece goods shipments to all countries do not show much improvement, as the total has only risen from 62,337,700 square yards in 1922 to 62,948,400 square yards in 1923. The United States increased her imports to 7,555,400 square yards

"WE'VE GOT IT"

The Only Real, Reliable, absolutely fool proof, satisfactory "AUTOMATIC BUNCH BUILDER" on the market



Our Guarantee

The "HOLCOMB" Automatic Bunch Builder is the result of years of development work by a practical mill man. It is fully perfected and has long been in successful operation in a score of mills. It is fool proof; has no wearing parts to get out of order; requires no oil; builds the bunch automatically only when the ring rail is lowered to doff; and requires absolutely no attention of the operator for setting or resetting. Remove the "personal element!" Remove the waste! Saves 80 per cent. Write now for our proposition.

OVER 700 INSTALLATIONS NOW OPERATING

Holcomb Bunch Builder Co.

Birmingham, Ala.

during 1923, which is a big improvement over the previous year's total of 6,413,200 square yards. Japan and China were two other countries which took larger quantities from England during last year.

In the woolen trade business has increased nearly 50 per cent compared with two years ago. The total shipments during last year amounted to 148,641,300 square yards against 121,590,600 square yards in 1922. The United States increased her imports under this heading from 6,890,400 square yards to 9,808,900 square yards during last year. Other countries where notable increases were reported are China, Greece, Turkey, Japan, Chile and particularly the Argentine Republic and Canada.

Insofar as the silk trade is concerned there has been increased activity in the matter of spun silk yarn, but in the other sections of piece goods, trade has not been as good as it was in 1922. While the United States took only 21,500 pounds of spun silk yarns from the United Kingdom in 1922, in 1923 she increased her imports of this yarn to 64,856 pounds. The total for all countries increased to 316,457 pounds for the whole of the year.

In the piece goods section, dyed and undyed, the United States showed increased activity, while Australia cut down her imports by one-half. The total shipments under this heading during last year were only 2,740,543 square yards compared with 2,900,000 square yards in the previous year. America's portion of last year's total came to 277,700 square yards.

Machinery for Shambow Shuttle's Southern Plant.

Greenville, S. C.—Machinery made in England is to be installed in the new plant of the Shambow Shuttle Company, which will occupy the former plant of the Cyclone Motors Corporation. All machinery used in the plant at City View is being removed to the larger quarters on the Easley Bridge road. With the machinery to be purchased the company will make an expenditure of about \$350,000.

The equipment purchased from England has landed in Charleston and will be installed in the near future. When the plant is ready for operation it will give employment to from 125 to 150 persons.

New Cotton Merger Planned.

Directors of the Nashua Manufacturing Company have recommended to stockholders that the company acquire not less than a majority of the shares of the Indian Head Mills of Alabama by issuing two shares of Nashua stock for each share of Indian Head Mills. According to interests in touch with the situation, it is felt that the deal will go through. As Nashua Manufacturing stock is quoted at 82½ bid at the present time, it means the equivalent of around 165 or 170 for Indian Head stock.

At first it might appear that the Nashua interests would have the advantage in such a transaction inasmuch as Indian Head shareholders are receiving \$10 a share annually in

dividends, whereas the Nashua stockholders are receiving nothing at the moment. However, directors of the latter have gone on record to the effect that they expected to resume dividends in the near future, with a \$5 or \$6 nearly rate probable.

If dividends were resumed on a \$5 basis, it is evident that the Indian Head stockholders would be receiving the same return as at present. The Indian Head Mills of Alabama has a book value of about \$325 a share and net quick assets approximating \$100 a share. The capital stock is \$600,000. During the past three years the stock has fluctuated between 130 and 150, and sales were made today at 163.

The strength of the Nashua Company's position in the pending deal seems to lie in the fact that it owns the trademark for Indian Head cotton cloth and cotton flannel, whose value it has increased through large advertising expenditures. The plan has been for the Nashua to sell the Alabama plant's goods after disposing of its own product, with the result that the Indian Head has been receiving the bulk of its income from the sale of goods effected by the Nashua. Obviously, as the latter controls the trademark, it has the sole right to sell this particular line of cloth.

If the deal is closed, it is assumed that the Alabama mill will be used as a feeder for the Northern plants, the former turning out the material which can be made more profitably in the South.

Antwerp Wool Market.

Prices in the Antwerp wool market held firm throughout the month, due to the influence of London and other oversea markets. Only 507 bales were sold until the public sale of November 27. Offerings of these sales amounted to 4,635 bales, of which 2,004 bales were sold at an increase of five to ten per cent for medium and common crossbreds, compared with October. A small quantity of Merinos was offered, but practically none sold. Crossbred lambs were favorites. Stocks at the end of November were 3,519 bales, compared with 4,084 bales at the end of October, Consul H. S. Fullerton, Antwerp, reports.

Cotton Movement from August 1, 1923, to January 25, 1924.

	1924	1923
	Bales	Bales
Port receipts	5,220,219	4,374,928
Port stocks	944,677	949,398
Interior receipts.....	6,140,034	6,088,555
Interior stocks.....	977,263	1,224,059
Northern spinners' takings	1,201,858	1,482,775
Southern spinners' takings	2,684,882	2,990,314
World's visible supply of American cotton.....	3,192,183	3,453,457

Salesmen Wanted.

To handle A-1 Leather Belting as side line. Commission basis. Territory, Ga., Ala., Tenn., and Va. Address G. T., care Southern Textile Bulletin.

Let Us Fill Your Requirements

You are assured of complete satisfaction in all your dealings with us.

The quality of our products and the service we render are alone responsible for our growth. Emmons Quality Loom Harness and Reeds have retained every old customer and gained new customers year after year.

Write us for estimates on your needs

—for—

Cotton Harness, Mail Harness, Selvage Harness, Reeds, Slasher and Striking Combs, Warper and Liece Reeds, Beamer and Dresser Hecks, Mending Eyes, Jacquard Heddles, Etc.

EMMONS LOOM HARNESS CO., LAWRENCE, MASS.

SOLE AGENTS FOR WARDELL PICKERS

The Largest Manufacturer of Loom Harness and Reeds in America

Southern Representative: GEO. F. BAHAN

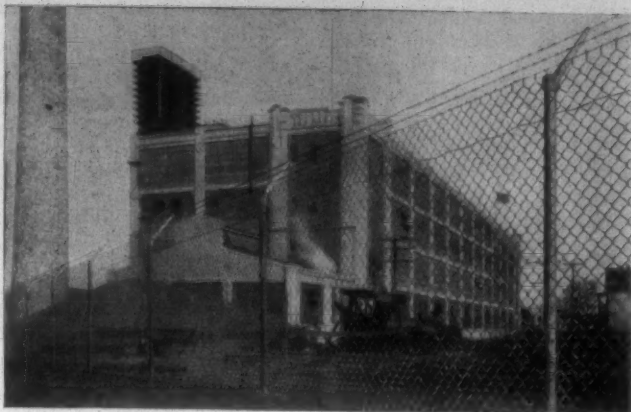
EMMONS LOOM HARNESS AND REEDS



FIRM—BECAUSE THEY ARE ANCHORED

Anchor Post Fences

PERMANENT—BECAUSE THEY ARE GALVANIZED



High Protective Chain Link Fence with barbed wire topping.

Galvanized Throughout to Resist Rust

All parts of every Anchor Post Chain Link Fence (fabric, posts, anchors, etc.), are heavily galvanized throughout to resist rust. This thorough galvanizing means many additional years of useful service—

and, consequently, a larger saving for the purchaser. Phone or write our nearest representative for complete information on this and other advantageous Anchor Post features.

Anchor Post Iron Works: 52 Church St., New York, N. Y.

CHARLOTTE, N. C.: R. M. Lane, P. O. Box 1375; GREENVILLE, S. C.: H. H. Orr, 315 Palmetto Bldg.; SAVANNAH, GA.: C. M. MacLean Co., 20 East Bay St.; ATLANTA, GA.: Beaulieu & Applewhite, Citizens Southern National Bank Bldg.; BIRMINGHAM, ALA.: C. S. Caldwell, 2011 Third Ave.

Sales Agents in Other Cities

The excellence of a product is
shown by repeat orders
from customers

We have more customers today than
ever before and some of them started
with us in 1873.

Whitinsville Spinning Ring Co.

Whitinsville, Mass.

Ring Specialists Since 1873

Wm. P. Dutemple, Southern Agent, Charlotte, N. C.

Saco-Lowell Shops 100 Years Old. (Continued from Page 47)

dous growth in the number of cotton mills in the South. The Saco-Lowell units were the first among the textile machinery builders to establish Southern offices for taking care of the needs of this rapidly growing textile section. In connection with this agency they have maintained for about twenty years, a shop for repairing and reclothing cards. Recently a new building has been erected at Charlotte, N. C., part of which is used as quarters for the selling office, and a large floor space for the repair shop and a supply depot for repair parts.

The Saco-Lowell Shops, occupying some sixty-two acres of floor space and employing about 6,800 men, is the largest builder of textile machinery in the United States, and is an important competitor in foreign markets.

All opening and picking equipment for cotton mills is made at the Kitson plant; revolving top cards and drawing frames at the Newton plant; roving and spinning at Biddeford; spinning and twister rings at Pawtucket, R. I., a plant which was acquired in 1920; and twistors, spoolers, warpers and slashers at the Lowell Shop. A complete line of Bradford and French system worsted machinery, as well as machinery for spun silk, are made at Lowell. This makes possible a physical division by which only a limited number of machines is made at each shop, so that the engineering force of each can devote its undivided attention to keeping pace with the specific requirements of the trade.

If Paul Moody, Kirk Boot, Otis Pettee, and the other stout-hearted pioneers who set up the first small shops could have a momentary resurrection, they would doubtless feel that they had built better than they knew; and yet no new invention, no improved organization, can detract from the glory of their achievements. Without their ingenuity, courage and perseverance, all that has come after them could never have been. At such a time as this, on the one hundredth anniversary of the small beginnings of what has come to be the largest organization of its kind in this country, it is well to pause for an instant to pay tribute to these founders.

Calcutta Piece Goods Market Outlook Good.

The piece goods demand in Calcutta continues to be good, retail inquiry from consuming centers being on a larger scale, according to a report to the Commerce Department from Trade Commissioner Spofford. Stocks of imported piece goods are steadily decreasing and prices in some styles have improved. Higher rupee exchange rates are no doubt helping to effect the placement of orders but goods for which the exchange has been fixed long before on a low basis hardly show any profit. The position in the local mill-made goods is also steadily improving. Sales, though not in large quantities, continue to be favorable and such miscellaneous buying is certainly helping the mills.

A careful buying market is always a quality market. And a quality market always develops an increasing demand for the special purpose alkalies

**WYANDOTTE
TEXTILE SODA
WYANDOTTE
CONCENTRATED
ASH**

**WYANDOTTE KIER
BOILING SPECIAL**

This is why there is such a steady increase in the number of mills using these products.

Ask your supply man



The J. B. Ford Co., Sole Mfrs.
Wyandotte, Mich.



**BALDWIN COTTON
MILLS**

Chester, S. C.

K. C. Etters, Supt.

Regarding your MI-CLEANSER as a SCRUBBING POWDER, will say that we have been using MI-CLEANSER for several years, and find it to be one of the BEST SCRUBBING-POWDERS we have ever used.

**CHARLIE NICHOLS
Pres., Treas. & Genl. Mgr.**

**NICHOLS MFG. COMPANY
Asheville, N. C., U. S. A.**

Franklin Process Co. Stockholders Meet.

Providence, R. I.—At the annual meeting of the stockholders of the Franklin Process Company, in the offices of the Providence plant, Eugene S. Graves, president of the company, stated that in spite of the subnormal conditions that had prevailed in that portion of the textile industry that the company served, the total pounds of yarn dyed by the three plants, at Providence, Philadelphia and Greenville, S. C., respectively, had shown an increase of 25 per cent over the poundage dyed in 1922.

Mr. Graves further stated that the sale of Franklin dyeing machines during 1923 had been good and that still better business in this department of the company was looked for in 1924. In fact, machinery orders now on the books will carry the machinery manufacturing well into next June. The bulk of this business is a large export order for India, but prospects for a good domestic business are also favorable.

Attention has also called to the purchase of an 8,000 spindle cotton yarn mill located near Spartanburg, which the company has been operating since November 1. This mill is delivering yarn to the three Franklin Process dyeing plants, wound on Franklin tubes all ready for dyeing.

Given a normal market, Mr. Graves stated the company should enjoy prosperity during 1924, as the number of customers served is increasing and has materially increased during the last year.

The following directors were elected for the ensuing year: E. S. Graves, E. P. Jastram, L. W. Jones, W. A. Traver, R. A. Leeson, J. C. Hartwell, A. G. Dana.

Following the election of the directors, they held a meeting and elected the following as officers: President and general manager, E. S. Graves; vice-president, E. P. Jastram; treasurer, L. W. Jones; general plant manager, W. A. Traver; secretary and assistant treasurer, C. E. Salb.

The Textile Industry Values Advertising.

The place that advertising occupies in modern merchandising plans is well exemplified in the textile industry.

A few years ago the potential possibilities of this selling force were not fully recognized by the industry. But as competition grew keener, as sales managers looked around for additional selling tools, they observed other industries smoothing the way for salesmen through the use of advertising.

They saw that advertising intelligently employed performed a definite and valuable function in decreasing sales resistance. As a result the textile industry took an increased interest in advertising, and very logically sought to obtain the ultimate benefit from its use.

They called in the advertising agencies, and entrusted to the men who make a continual study of advertising the task of preparing effective publicity.

The great majority of firms inter-

ested in the textile industry now employ agencies. Their range are growing, the latest additions being Willcox & Gibbs Sewing Machine Company, manufacturers of industrial and domestic sewing machines; the Torrington Company, Torrington, Conn., manufacturers of latch needles for the textile industry; Lestershire Spool & Mfg. Co., Johnson City, N. Y., manufacturers of vulcanized fibre spools and bobbins; and Morris & Co., Inc., Grovesville, N. J., manufacturers of canvas baskets, hampers and trucks, who have placed their accounts with Hazard Advertising Corporation, of New York.

This agency recently has also been appointed to handle the advertising of the Heller & Merz Co., New York, manufacturers of aniline colors, and the International Salt Company, Scranton, Pa.

The Week's Cotton Trade.

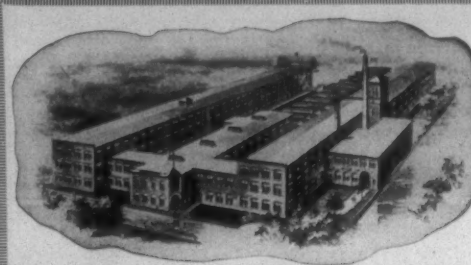
Cotton prices during the first half of the week ending January 25 were relatively steady but sharp fluctuations occurred during the latter half of the week. The average of the quotations for No. 5 or middling cotton in nine designated spot markets (Norfolk market closed) was 33.16 cents per pound at the end of the week, compared with 32.98 cents on the 18th. March future contracts on the New York Cotton Exchange closed at 33.43 cents on the 25th, compared with 32.96 cents at the close of the previous week.

A sharp advance occurred on the 23rd, the average of quotations for No. 5 in ten designated spot markets moving upward nearly $\frac{3}{4}$ cent per pound and March future contracts at New York advancing 78 points. Among the reported causes were a more favorable view of the European situation, further delay in farm work in the Southwest on account of unfavorable weather, and rapidly dwindling stocks of cotton in the South, buyers experiencing difficulty in finding desired grades and many holders of spot cotton unwilling to sell at the present price level.

The ginning report of the Bureau of the Census, issued on the 23rd, showed that 9,946,462 bales of the growth of 1923 had been ginned prior to January 26, 1924, compared with 9,648,261 bales and 7,912,452 bales during the corresponding period of 1922-23 and 1921-22, respectively. The ginning figure was slightly above trade expectations but was interpreted as pointing to a crop substantially in line with the December estimate of the Department of Agriculture and was said to have had only slight effect on prices.

Reports from the cotton goods markets disclosed a slightly increased demand for some lines of goods.

Exports for the week amounted to 71,967 bales, compared with 203,056 bales during the previous week and 73,423 bales for the corresponding week in 1923. Exports from August 1 to January 25 amounted to 3,799,997 bales, compared with 3,210,483 bales for the corresponding period last season. Figures include exports to Canada to December 31.



GREIST LOOM DROP WIRES

For forty years this plant has manufactured precision steel products. This experience enables us to make drop wires of extreme accuracy and uniformity. All processes of hardening, tempering and finishing are at our disposal. Our drop wires are made to accurate dimensions with satin finish and always entirely free from burrs. Regularly made for all makes of looms. What are your requirements?

THE GREIST MFG. CO., Dept. R, New Haven, Conn.

Eastern Representative:
BOYD'S TEXTILE BUREAU
Providence, R. I.

Southern Representative:
SLAUGHTER-McCABE CO.
Greenville, S. C.



BRUSH QUALITY

Imagine that on your desk are two brushes. Two Comber Dusters. They look exactly alike, except that one is priced higher than the other. You can tell no difference.

Of course, you can not. You are not a brush expert. But the difference is there. Cheap brushes are made of cheap bristle. Just as an illustration, the bristle we use in Atlanta Brush Company brushes costs four times as much as bristle we could use if we were not quality cranks.

We make only one kind of Brush—the best it is possible to produce. Then we price it fairly and guarantee it absolutely.

*The genuine is marked
with our name*

ATLANTA BRUSH COMPANY
Atlanta, Ga.

Every "Perkins Practical Brush" is guaranteed unconditionally

**ATLANTA
BRUSH
COMPANY**

A Brush for every Textile Need

WHITIN MACHINE WORKS

ESTABLISHED 1831
TEXTILE MACHINERY

Manufacturers of the following Machines

COTTON MACHINES

Cleaning	Combing Machines
Opening	Drawing Frames
Conveying	Roving Frames
Distributing	Spinning Frames
Picking	Spoolers
Revolving Flat Cards	Twisters
Sliver Lap Machines	Reels
Ribbon Lap Machines	Quillers
Loom Dobbies	

COTTON WASTE MACHINES

Cotton and Woolen Systems

Openers	Revolving Flat Cards
Pickers	Derby Doublers
Willows	Roving Frames
Card Feeds	Spinning Frames
Full Roller Cards	Spoolers
Condensers	Twisters
Special Spinning Frames	

SILK MACHINES

Ring Twisters

WOOLEN MACHINES

Card Feeds	Condensers
Full Roller Cards	Wool Spinning Frames

WORSTED MACHINES

Cone Roving Frames	Ring Twisters
--------------------	---------------

MAIN OFFICE AND WORKS
WHITINSVILLE, MASS. U.S.A.
SOUTHERN OFFICE CHARLOTTE, N.C.

Says Shortage of Raw Materials Causes High Prices

It's a shortage of wool and cotton and not the wanton profiteering of the middleman that has boosted the prices of suits and dresses and added the extra nickle and dime to every yard of wool and cotton in the bolt, according to the Sears-Roebuck Agricultural Foundation. There have been increased costs in the production and distribution end of the cotton and woolen industry as in every other. But the world shortage of raw materials is the primary reason why the suit of clothes that cost \$30 in 1913 retails today at approximately \$60. Cotton and woolen prices have doubled their price in the past ten years. Prices last year averaged higher than in 1922. Indications are that they will remain at about the same level during 1924.

Raw wool prices are ranging from 100 to 140 per cent higher than they were eleven years ago. Wholesale prices of broadcloth have increased 115 per cent since 1913, while the wholesale prices of serge has increased 141 per cent. The housewife who shops for pure virgin wool and a yard wide, seldom has the price once she finds it. She contents herself with shoddy. She blames the middle man for the exorbitant price of her new spring suit. Long rows of statistics tell a different story. Figures show that in the past ten years shoddy's most flourishing decade—the sheep population of the United States dropped from 49,719,000 sheep in 1914 to 37,209,000 sheep in January, 1923. Compare this figure with the sheep population in 1901 when sheep on the American farms totalled 53,633,000 head. Not since 1878 has there been a sheep population as small as the present one.

For a great many years wool sold too cheap in accord with production costs. The wool grower made a profit—a small one on a narrow margin. About 1911 labor costs began to increase along with land values and taxes. Sheepmen of the range couldn't afford to keep as many wethers in the herds just for their fleeces. Every year a few more wethers were shipped to market. As the buying power of the industrial classes increased, there was a corresponding increase in the demand for lambs. Sheepmen began raising lambs for the market instead of wool. Lamb paid the best. Wool production sharply declined. Now, for three years world consumption has been gaining on production, a fact which makes the present high prices safe for some time to come.

World production of wool is far below normal. The estimated clip in the leading wool producing countries averaged around 2,546,565,000 pounds annually in the five pre-war years. In 1921 the average was only 2,354,735,000 pounds against 2,270,737,000 pounds in 1922. In Europe considerably less wool is being used. Europe hasn't the spending money she had before the war. Yet in spite of her reduced purchasing power in the last five years consumption has been overtaking pro-

duction. Large supplies that accumulated during the war in Australia, New Zealand, Argentina and Uruguay are practically gone, and dealers and mills in wool consuming countries have only a small increase to show in the holdings. World consumption is considerably below the potential demand.

For the last two calendar years it has required about 1,600,000,000 pounds of wool to supply the mills of this country. This is an increase of about 25 per cent above the average of the past ten years. A part of this increase is due to the shortage of stocks, which had become depleted during the black year of 1920, and part of it is due to the increased purchasing power of consumers. During this same period our domestic production, including pulled wool, was only 570,000,000 pounds or one-third of the consumption.

In spite of the fact that sheepmen are fired with high prices for wool production is not increasing with any marked rapidity. The estimated clip for 1923 of 228,051,000 pounds is larger than 1922, when the average clip totalled 220,115,000 pounds and the 1921 clip which averaged around 223,062,000 pounds. But in 1920 and 1919 the clip was considerably larger than those of the last three years. In 1919 the clip was 249,958,000 pounds as compared with 235,005,000 pounds in 1920.

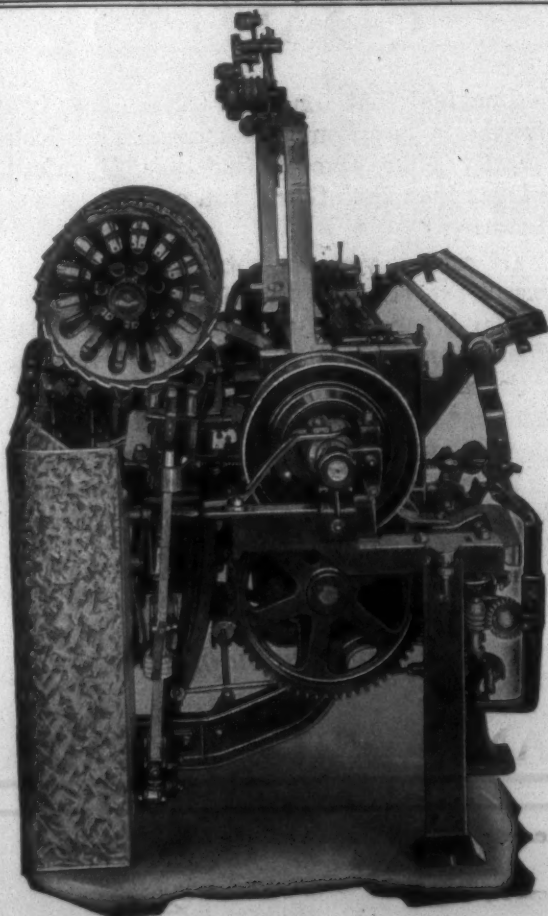
Prices on cotton goods have been keeping step along with woolens. Calicoes and ginghams, percale, shirting and sheeting have been doing their exercises up and down the price scale—mostly up. Cotton goods are retailing at prices more than 100 per cent higher than in 1915. There has been a war industrial labor, taxation costs, high city rents increased distribution costs are the results. But if manufacturing costs had remained at a pre-war standard cotton fabrics would nevertheless show a decided rise in values due to the shortage of supplies.

Between December 20, 1913, and December 20, 1923, the wholesale price of cloth went up 32 cents. During the same period the price of raw cotton advanced 23 cents, while the manufacturer's margin gained barely nine cents. The greatest increase in the wholesale price is due to the rise in raw cotton prices.

During the past two years these high prices are the result of a shortage of supply. The boll weevil is at work. Half of the cotton acreage in the South, 20,000,000,000 acres, lies in the infected territory.

Production is decreasing. Population annually grows. Every year there are hundreds of new bungalows to be furnished, more children to be dressed for school, more auto tires to be bought. Each year the improved standard of living calls for the purchases of more dresses, more shirts, sheets, handkerchiefs and towels. What chance has consumption to reduce. Even if the cotton buyers put on the brakes and buy

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the utmost economy consumption figures will remain about the same. A few years ago more than 50 per cent of the cotton raised in the United States was imported, now from 60 to 65 per cent of the total crop we use at home.

The cotton goods is bringing more than two times pre-war prices. In September of 1923, 24 to 25-inch calico was retailing at prices 134 per cent greater than in 1915. Percale was calling 108 per cent higher a yard while dress gingham was 116 per cent higher. Sheets bleached 81 by 90 inches averaged 120 per cent higher each, while bleached muslin increased 129 per cent a yard.

Cotton stockings and underwear have increased in price in many instances, and part wool underwear, that is, wool mixed with cotton, will be 40 per cent higher next fall, one house reported. Raw cotton selling in August at 20 cents a pound is now 34 cents. Cotton underwear and stockings ought to be selling at a higher price now than they are, few firms have raised their prices over those of a year ago in spite of a cotton shortage amounting to more than a million bales.

Regardless of the price, the consumption of cotton goods is almost back to pre-war basis, 21,000,000 bales a year. There isn't that much produced now, not in the whole world put together. Estimated world production based on reports from the principal producing countries will range around 17,700,000 bales. In the last two years world consumption has averaged 20,500,000 bales.

Three years ago cotton prices went away down because of the big crop of 1920. June, 1921, the market was at its lowest ebb. Foreign and domestic consumption fell off. There were all the general symptoms of a deflation period. Then came three short crops in succession. Consumption increased slowly, for the mills were using their oversupply acquired during the slump. Then the price jumped. The mills kept right on using their old stocks, waiting for the new year to bring heavy yield. One, two years—the big crops didn't come again last year, the crop came short. The boll weevil is taking its toll. The world has awakened to the fact that the days of the big cotton crops are numbered until some means of combatting the weevil can be applied on a large scale. It is probable that a normal cotton crop under present conditions is about 30 per cent less than in pre-weevil days. As the United States furnishes two-thirds of all the world's cotton supply, continued shortage of the domestic yield will keep world prices high.

Both cotton and wool are up to stay until the raw supplies are sufficient to balance favorably with demand.

Annual Lowinson Chart of Statistics.

The annual chart issued by Louis Lowinson & Co., showing in comparison the trend of prices for coarse and fine fabrics, plain and fancy effects and silk and cotton mixtures, together with the fluctuations in spot middling upland cotton, is out. Reading from this chart the lesson of 1923, an official of the company says:

Lowinson's Comparative Cotton Goods Chart for 1923 is a historical record which attests to the difficulties attendant to the manufacturing and merchandising of cotton textiles under prevailing trade conditions.

The glaring differences between the highs and lows of both cotton and cloth quotations would not be serious if the movements were not so frequent and short lived.

The year opened with a decided rising tendency both in cotton and cloth. In the early months of the year, there was every indication and warrant for expecting a good demand for finished business. The short crop was an established fact, and this, coupled with earlier mill curtailment, made the price level look reasonably sound.

The expected demand for finished goods developed satisfactorily. However, before the movement was well on its way, the entire tone of cotton and gray goods changed and prices weakened and continued their downward course well into the summer. This reversal was caused largely by the over-production of cloth, due to night running of mills and the reports of huge increases in cotton acreages which gave hope of a bumper crop.

In the late summer the market began to improve slowly, not so much by reason of improved tone in finished goods, but by reason of gradually changing crop statistics. Caution prevailed all along the line and the advance was grudging. All hands were afraid to operate fully, as such operations undertaken under similar circumstances, only six months earlier, proved profitless. This doubling attitude of the mills and converters, was the chief stimulating influence to the upward trend, which continued to the end of the year.

The call for cotton and cloth was well spread out throughout the balance of the year. The process was very gradual. The skeptics slowly became convinced that the cotton situation was an actual one, and consequently they felt the cloth situation would be the same. This gradual coming into line of mills and converters fitted ideally into a well manipulated cotton market. Throughout this period, there was no exceptional activity in the finished goods market; the entire tone of finished goods buying being that of moderation. The total movement, however, was entirely satisfactory.

Intrinsic gray goods values throughout the year were exceptional, but these values in most instances were reflected fully in the price of finished goods and therefore from a profit standpoint they were meaningless to the converter. The year closes with fond hopes of a good inflow of gray and finished goods business in the early months of 1924. At this writing the new business has not developed. There are unmistakable signs that the development will be a slow, measured, careful movement, but at the same time, there is every indication that the total volume will be satisfactory. If the past year holds any lessons for the new year, it should be the discouragement of any desire for speculative profits or excessive production.

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Foreign Textile Markets

London.—The past week started slowly in cotton after the holidays, and it was very evident that Manchester is not to experience in January a return of last November's more vigorous buying. Such demand as there was which actually went into orders was for lighter goods. The most interesting development of the week was the substantial demand for dhooties which came to the surface on Friday, but unfortunately buyers and sellers were apart to the extent of 5 per cent. Cotton and cloth prices were but little changed on Friday as compared with a week ago. A feature of the imports into India for the seven months ending in October is the striking increase in the import of colored goods, being 100 per cent over 1922. Retail trade in the United Kingdom in 1923 is reported to have resulted in the movement of more stocks of goods than in 1922, but actual figures in pounds sterling are reduced. The conditions in different sections of the country differ, trade being reported as good in the North of England, Scotland and the South Coast, but not so good in the Midlands.—Trade Commissioner Hugh D. Butler, London, January 7.

Belgium.

The Belgian textile situation generally is even more prosperous than reported last month due to the declining franc exchange, and increased foreign demand, while factories anticipate that improved facilities for commercial dealing with Russia will add to the market activity. The middle of January witnessed an important development for cotton spinning in the shape of the resumption of relations, hitherto suspended with German consumers, and an extremely strong demand from that source. Domestic weavers are still buying steadily. Weavers generally are engaged for some months ahead at reasonably profitable terms, but are still hesitant although mercantile stocks are low and in view of the heavy foreign demand they are apparently discounting rising fabric prices. Marked gains in Argentina, British and Dutch purchases of Belgian cloth were also noted.—Cable from Acting Commercial Attache S. H. Gross, Brussels, January 22.

Netherlands.

The Hague.—A lockout in the Dutch cotton textile industry dating from December 22 affects some 39 plants affiliated with the Manufacturers' Union of "Twente" (Province of Overijssel) and Gelderland. A wage disagreement began early in October, 1923, when announcement was made by a number of textile manufacturers that all piece and hourly wages would be reduced 10 per cent in the first week of November on account of the refusal of the labor unions to approve of the 53 instead of the 48-hour week. Owing to union resistance, a progressive lockout was declared by employers who threatened to shut down the entire industry on December 22 unless the labor unions yielded. Recently officials have en-

deavored to settle on a basis of a 5 per cent wage decrease, and operating time not over 48 hours during 26 weeks of the year, and optional increased time not exceeding 126 hours during the other half. This solution is opposed by the employees as affording insufficient relief to them. Practically no cotton mills will show profits for the past year.—Cable from Acting Commercial Attache Cross, January 22, and report of P. J. Van Hees, clerk to Trade Commissioner, December 20.

Egypt.

Cotton piece goods continued to be imported in greatly increased quantities in spite of the fact that the market gave clear indications of being overstocked. This is attributed to the feeling of optimism which prevailed among Egyptian business houses and was a reflection of the revival of the cotton export business. The value of Egypt's imports of cotton piece goods increased during the month of October by approximately \$1,900,000 over the value of cotton piece goods imported during September, 1923, and increased by approximately \$1,180,000 over the value of cotton piece goods imported during October, 1922.—Consul Ernest L. Ives, Alexandria, December 12.

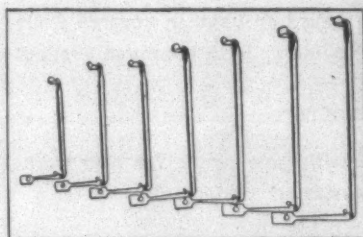
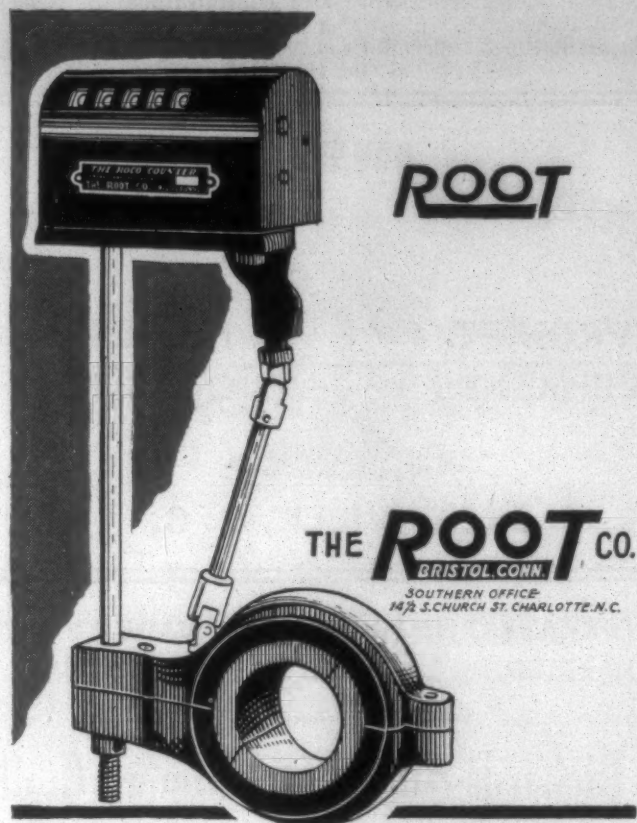
Turkey.

The demand for cotton goods from the interior of Anatolia is not very strong. No change in the sheeting trade. Japan, which strenuously competes with the United States, has the advantage of lower prices and of heavier weight in the sheeting (on account of the starch added to it), although inferior in quality. But the Turkish consumer does not yet realize the difference. However, the local Gendarmerie has bought one hundred bales and the army 600 bales for underwear for policemen and soldiers, all from America, part of it being in stock with the local dealers. Prices reached 16¼ cents a yard.—Consul General G. Bie Ravndal, Constantinople.

China.

With urgent demand from interior points where stocks are practically bare and the consumption of debt settlements it is expected that prospects for piece goods business will be considerably improved. Purchases at auctions with payments to be made after the New Year resulted in strengthening auction sales at firm prices in all lines. However, business is still behind that of last year. During the period December 15 to January 15 the auctions only cleared 124,000 pieces as compared with 161,000 pieces in the same period last year.—Cable from Commercial Attache Julean Arnold, Peking, January 19.

The market for piece goods is dull. Clearances are poor on account of financial stringency. Prices of yarn are still under the Shanghai level. Imports of printed and dyed goods show a fair increase. The bulk of imports are British goods. There were small arrivals of Japanese jeans.—Consul General P. S. Heintzleman, Hankow, December 8.



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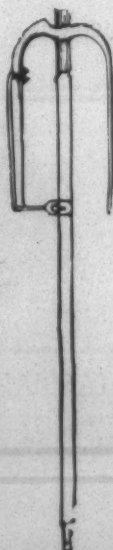
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Texas to Establish Large Textile School.

The State of Texas is planning to build the largest and best technical school in the country, according to statements made by John W. Carpenter, of Dallas, Texas, vice-president and general manager of the Texas Power and Light Company, who spent a few hours in Charlotte Saturday.

The new college, which will be known as the Texas Technical College, will be located at Lubbock, in the western part of the State, 300 miles from Dallas.

Mr. Carpenter is a member of a commission appointed by the Texas Legislature to visit the chief technical schools and textile centers of the country, with a view to getting the most advanced ideas on the construction of technical schools and a thorough knowledge of the practical operation of textile mills.

Other members of the commission are: Dr. P. W. Horn, president of the new college; William Ward Watkins, of Houston; W. C. Hedrick, of Fort Worth, and L. W. Robert, Jr., of Atlanta, architects and engineers who will have charge of the construction work.

The Legislature has already appropriated \$1,500,000 to the college, in which it is expected that close to \$20,000,000 will eventually be invested, Mr. Carpenter stated. Present plans call for the erection of 27 buildings. Chief interest will be centered on the textile department, which it is the intention to make second to none in the world.

Actual construction will start immediately after the commission returns to Lubbock, and it is expected that the cornerstone of the initial building will be laid July 4.

"Texas is making tremendous strides in the production of cotton," Mr. Carpenter stated, and as instance cited the fact that whereas 10 years ago Lubbock county produced no cotton at all, last year the crop totalled over 60,000 bales. Texas farmers during the 90-day period of crop marketing last year deposited \$100,000,000 a day in banks, the return from their cotton crops alone. "We believe that within 25 or 30 years Texas will be the textile center of the South," Mr. Carpenter declared.

The Texas Power and Light Company, of which Mr. Carpenter is the active head, occupies the same relative position to the textile industry in Texas as the Southern Power Company holds with the industry in the Piedmont section, he explained.

"We are giving the mills we supply as low a rate as the mills in this section are getting, which is made possible by the fact that we are in the center of three sources of fuel supply, coal, lignite, and oil. All of our power is furnished by steam.

"We believe that our system of power plants and power lines will equal anything you have in this section," Mr. Carpenter continued. "We are now erecting a 100,000 kilowatt station."

The party drove over to Kannapolis Saturday morning to inspect the big Cannon Mills. They left for Philadelphia Saturday night, the present itinerary calling for stops at Philadelphia, Boston, Lowell, Pittsburgh, and other technical school and textile centers. The party has already visited Atlanta and Raleigh.

The Texas party, during its stay in Charlotte, was accompanied by E. W. Hunter, of the Charlotte office of the Saco-Lowell Shops, who conducted the party through several mills in Charlotte and nearby towns.

Production of Indian Cotton Mills Shows Decrease.

The output of the Indian cotton spinning and weaving mills, according to the monthly statistics of the Commercial Intelligence Department of India, in the eleven months, September, 1922, to July, 1923, was 616,000,000 pounds of yarn and 357,000,000 pounds of woven goods, compared with 640,000,000 pounds and 366,000,000 pounds, respectively, in the corresponding months of the preceding year. In the four months, April-July, the production amounted to 208,390,000 pounds of yarn and 119,582,000 pounds (514,557,000 yards) of woven goods and 12,247,000 pounds of yarns and 492,345,000 yards of piece goods were imported from foreign countries.

Wellington Wool Sales.

The first wool sales of the 1923-24 season was held in Wellington, N. Z., November 19, and of the 12,896 bales offered, fully 99 per cent were sold at auction, or immediately afterwards. Wool growers are fairly well satisfied with the results, and a good season is anticipated. Prices obtained were 1½ pence to 2 pence per pound higher than those prevailing at the closing sale of last season. Practically all the wool sold was of the new clip and due to a wet season was in very good condition. Buyers from almost all the consuming countries were on hand, says Consul J. C. Hudson.

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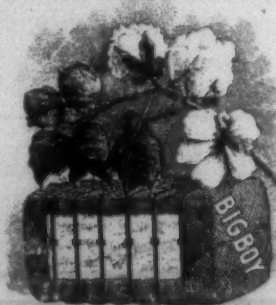
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Cotton Acreage for 1924

FINDING it impossible to answer the numberless inquiries which it is receiving from correspondents at home and abroad, regarding the acreage and the planting of the cotton crop of 1924, the American Cotton Association has prepared and is issuing the following statement as its views on these subjects:

The question of the cotton acreage to be planted in the United States in 1924 is occupying the leading thought and attention of every department of the cotton trade, both in this country and abroad.

There are some pertinent and convincing fundamental truths applying to the American cotton acreage under boll weevil conditions which should be brought out and emphasized for serious consideration of the growers and the other departments of the cotton trade.

Under pre-weevil conditions an increased cotton acreage usually indicated a corresponding increase in normal production of lint cotton. This is no longer a dependable criterion upon which to base the prospects for increased production, but on the contrary past experiences indicate a lowering of the yield of lint cotton per acre, and thereby bringing serious disappointment not only to the growers, but to the manufacturing consumers of the staple. A fuller understanding of the changed conditions absolutely essential to profitable cotton production, is a matter of supreme importance to the cotton growing industry in the weevil infested sections of the cotton belt.

Success in cotton culture and normal production of cotton supplies depends upon a restricted acreage per plow, high fertilization, rapid culture of the growing crop and the prompt and effective application of arsenical poisons early after the crop is chopped to a stand and throughout the period of fruitage, at intervals of one week or ten days if insects are found to be present. The crop must be plowed over twice a week to push growth and fruitage if the weather permits.

Each acre planted in cotton under boll weevil conditions requires twice the amount of labor and culture as was necessary under pre-weevil conditions. Large applications of high grade fertilizers per acre at time of planting and subsequent applications of nitrate of soda or sulphate of ammonia in May are also needed to get rapid growth and heavy, quick-maturing fruitage.

Eight acres to the plow is the maximum area which can be planted with safety on farms where labor and mule power are plentiful. Five to six acres per plow should be planted on farms where labor for rapid culture and poisoning is not plentiful.

These facts have been fully demonstrated by hundreds of farmers operating small cotton demonstration farms averaging eight acres to the plow, under the Boll Weevil Control Campaign of the American Cotton Association, all over the South in 1923 and by practical and successful planters all over the cotton belt during the past several

years. On the smaller acreages per acre the yield of lint cotton per acre has been materially increased, while the balance of the farm planted to food and feed crops has largely tended to solve the credit problem and makes the industry profitable to those farmers who have pursued the intensive system of planting and culture.

To largely increase the cotton acreage because of existing attractive prices for cotton, will prove a suicidal policy to the growers and ultimate disappointment to the textile industry before the close of 1924.

It is of prime importance that the land to be planted in cotton this year be prepared with care by deep plowing and harrowing to a fine tilth in order to secure a good seed bed in which the seed will promptly germinate and grow off to rapid fruitage. Increased acreage with different preparation of the soil, light, fertilization and inability to cultivate the crop rapidly and apply weevil poisons intelligently, will result in folly unspeakable at a time when a pending cotton famine faces the consuming world.

More hand labor and mule power labor backed by credit is required in the growing of the cotton crop than any other staple crop planted in the United States. The cost of production and the hazard of risk in the production of cotton is greater than in the production of any other crop grown in America.

Carefully gathered statistics in the cotton States show five hundred thousand farmers white and colored have moved away from the cotton fields to industrial centers since 1920 and the exodus continues. The return of those who were unfit physically for labor and the return home of many others to spend the Christmas holidays has misled the public entirely concerning migration. Those physically unfit for labor have returned in a worse condition than they were when they migrated and are a burden on the cotton producers. Those returning for the holidays, telling of the higher wages and better living conditions, are sowing discontent broadcast and when spring opens up as a result the migration will be vastly increased.

It has been the custom for the last fifty years to bring thousands and thousands of mules each fall from the West into the South. Records show the importation of mules in 1921 and 1922 was next to nothing and that the importation in 1923 was only a small per cent of the number annually brought in while thousands of mules have been sold from the cotton fields and distributed into the lumber and turpentine industries.

Short term credits from supply merchants, fertilizer companies, implement dealers and local bankers, have been greatly restricted in the cotton States since the deflation period of unprecedented ravages of the boll weevil in 1920 and the past three years on the cotton crop.

These are vitally important economic problems which face the growers at the beginning of the 1924 season and constitute a fitting and

indisputable argument to prophecies regarding the ability of the South to plant and properly cultivate an increased or even as large an acreage as was planted in 1923. Those who earnestly desire an increased production of American cotton in 1924 can best subserve the interests of the industry and make it possible to secure larger supplies of the staple so imperatively needed, by urging upon the growers the practical necessity for restricted acreage per plow under an intensive system of culture and vigorously opposing the fallacy of overplanting.

Propaganda is being spread broadcast over the cotton belt that as a result of the low temperatures on January 6 and 7 the winter hibernating weevils have been destroyed in large numbers and that the growers can increase their cotton acreage with but little fear of heavy infestation from the insects during the coming season.

No reliability can be placed upon such statements and the farmers should not allow themselves to be misled by such propaganda. Undoubtedly, some of the insects in many sections of the belt were killed in the recent freeze if they happened to be hibernating in exposed places. But a sufficient number will survive to destroy the crop in every possible effort is not made by the growers to check infestation after the crop is up and growing.

In this connection, it is well to refer to the two crop years of 1917 and 1918, when temperatures both winters were recorded lower than those of January 6 and 7 just passed. In 1917 there was planted 33,840,000 acres to cotton and the crop only totalled 11,248,000 bales, or barely a bale to three acres. In 1918 the acreage was 36,000,000 acres and the production 11,900,000 bales, not quite an average of one bale to three acres. The estimated destruction to the 1917 crop from weevil damage was fixed by the Federal Government at \$2,095,000, and that of 1918 at \$2,325,000, which indicated the greatest damage from weevil infestation ever recorded up to that time except in 1916.

It must be borne in mind that during the two years recorded the weevil infestation had not reached middle Georgia and the two Carolinas, all of which territory is now fully covered by the insects except the northern cotton counties of North Carolina.

For many years the weevils could not safely hibernate north of the thirty-third degree of latitude, but the insects have now become thoroughly acclimated to practically the entire cotton belt as far north as the thirty-sixth degree of latitude.

It is quite evident from the above and foregoing statements at nothing short of disappointment to the growers and the cotton industry as a whole is likely to result from a disregard of the practical experiences in growing cotton under boll weevil conditions.

An increased acreage in 1924 will spell disaster to those who are fool hardy enough to take the chances against the best judgment of successful growers and the actual experiences of every farmer engaged in the cotton growing industry.

Artificial Silk in France.

Competition between real silk and the artificial product becomes more apparent in France each month, according to a report from Vice Consul Cyrus B. Follmer, Lyons, to the Department of Commerce. It is clearly indicated, he says, in the figures of the silk conditioning houses from January to November of last year as compared with the same period in 1922. In the first named period there were 4,150,000 kilos conditioned and in the latter 5,152,000. Production of artificial silk meanwhile has increased tremendously so that for the first time it exceeds that of the natural fibre. The remedy, the Vice Consul says, consists in a change of fashion. That can occur, in all probability, only when prices of natural silk become more stable.

Consumption of Fibre Silk May Equal That of Raw Silk.

Consumption of artificial silk in this country during 1924 bids fair to equal, or even exceed, raw silk consumption, to judge from figures made public this week by leading producers of artificial silk. A contemplated increase by the Viscose Company of about 4,500,000 pounds over the 1923 output, brings the estimated production for 1924 to about 40,000,000 pounds. Assuming imports to remain at the estimated total for 1923 of about 4,000,000 pounds, the artificial silk available for use of manufacturers in the United States would be greater than the imports of raw silk in this country during 1924, virtually all of which will be consumed here, will be distributed as follows: Viscose Company, 32,000,000 pounds; Tubise Artificial Silk Company of America, 3,500,000 to 4,000,000; Du Pont Fibre-silk Company, 2,750,000; Industrial Fibre Corporation, 1,200,000; Lustron Company, 500,000 pounds.

Should the raw silk imports during 1924 equal the 1922 total of roughly 47,000,000 pounds, the total would still be close enough to the estimated supply of the constructed fibre to make the latter figures interesting to the trade.

New Du Pont Dye.

Wilmington, Del.—A new blue which is described as a highly concentrated, very soluble direct dye-stuff, has just been developed and placed on the market by the dye-stuffs department of E. I. du Pont de Nemours & Co. The new color, known as Pontamine Blue GH Concentrated, gives a full medium shade, which will be most useful for self shades or as a base for navies on raw stock, yarn or pieces.

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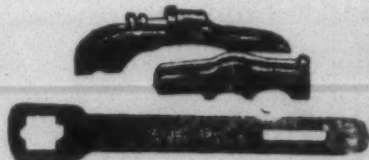
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WRITE FOR SAMPLE

Greenville Overseers Meet.

Greenville, S. C.—The people of Dunegan Mill entertained the Greenville Textile Club Friday night in their new gymnasium near the mill. This was the third regular monthly meeting of this club which organized several weeks ago at the office of the Parker School District with C. P. Dill chairman, J. L. Bobo, vice-chairman, C. W. McSwain, secretary, and W. C. McAbee, assistant secretary. The membership of this club comprises the overseers of the textile plants in Greenville township, and was organized to promote good fellowship, mutual understanding and co-operation among the men who have direct supervision of the forces which have made Greenville the textile center of the South.

The guests were received in the reception rooms of the Y. M. C. A. and were then conducted to the gymnasium, where a bountiful supper was served by girls from the mills represented by the membership of the club. Those serving were Essie Noland, Monaghan; Callie Smith, Union Bleachery; Lila Davis, Mills Mill; Ethel Hembree, American Spinning Company; May Norris, Camperdown; Leo Pettit, Poinsett; Mrs. A. H. Pollard, Woodside; Gladys Gregory, Poe Mill; Fannie Sentell, Brandon; Lena Garland, Dunegan.

During the serving of supper a number of musical features were presented by talent at Dunegan. Among these were selections by the Dunegan Orchestra; a vocal solo by Miss Lila Sears; several songs by a double quartet composed of Misses Lila Sears, Gevena Davis, Hautie Prammell, Verdine Prammell, Grace Langford, Hazel Brockman, Gladys Hughes and Evelyn Dockery; several songs by a girls quartet composed of Misses Geneva Davis, Gladys Hughes, Hautie Prammell and Evelyn Dockery.

J. W. Strubling, acting as toastmaster, introduced J. N. Badger, superintendent of Dunegan, who welcomed the club as guests of the mill. C. P. Dill responded on behalf of the club. A number of visitors were then introduced as guests of Dunegan and the club. Among these were E. G. Jesse, superintendent Watts Mill, Laurens, and the overseers of his mill, including Mr. Blackman, Mr. Riddle, Mr. Roberts, Mr. Taylor, Mr. Clark and Mr. Rogers; the superintendents, including J. C. Tidwell, J. C. Montjoy, A. Meikle, M. O. Alexander, T. A. Sizemore and P. McGarrity; J. W. Jackson, of Roswell, Ga., and F. H. Ward, of India. Rev. E. B. Crain was the speaker of the evening and his inspiring remarks on the elements which go to make up success were ably presented. Among other thoughts presented by Mr. Crain were: The Value of Having a Trade, Responsibility of the Overseer to His Help, A Love of Work and Those Connected With It, Principles Taught By Jesus to Be Carried Into Business.

After a short talk by T. A. Sizemore, Mr. Strubling turned the meeting over to Mr. Dill for a short business session. J. A. Garvin, of Judson, M. H. Dillard, of Poe, and J. T. Ormand, of the Union Bleachery, were introduced as new members. A resolution was adopted

thanking the officials of the Dunegan Mill for the cordial hospitality shown. W. C. McAbee read an interesting paper entitled, "Making Men." Upon the invitation of the officials of the Union Bleachery, the club decided to hold its February meeting at that place.

British Cotton Mills Have Worst Year in History.

Manchester, Eng. — The serious state of the cotton trade in England was mentioned by Sir Charles Macara, a former chairman of the Committee of the International Federation of Master Cotton Spinners and Manufacturers Association, in an address to the Provisional Emergency Cotton Committee here.

He stated that for more than three years a large number of mills had shown no return whatever to those who had invested their money in them, and extra capital was being called up, only to be dissipated owing to the inactivity and want of unanimity among those who controlled the employers' organization. The effect both on Lancashire and the country generally was most disastrous. This was shown in the revenue returns just issued, it being stated that there was up to the present a deficiency of \$250,000,000.

Unless this great loss was stopped by getting the cotton trade on a profitable basis again, he concluded, it was difficult to see how the deficiency could be made good before the end of the present financial year.

Shareholders in cotton mill companies have never experienced such a disastrous year as the one just closed, it is asserted. Only 90 of a total of 310 companies have been able to make a return on their capital. The total paid up share capital of the 310 companies controlling 33,000,000 spindles, was more than \$242,000,000 and during the year they distributed \$4,120,180 in dividends, or about 1.7 per cent on the total called up capital, against 2.7 per cent last year. Sixty-five companies paid 4.48 per cent against 8.95, but 170 firms have now worked two years without paying any dividends whatever. During the year 28 companies have made calls on their members for a portion of the uncalled capital.

Shanghai's Imports of Grey Cloth.

Imports of grey shirtings and sheetings into Shanghai for the period, January 1 to November 29, 1923, amounted to 859,598 pieces of European, 825,632 pieces of Japanese, and 12,920 pieces of American grey cloth. Sales of both European and American goods show decreases from the figures for the corresponding period of 1922 when 1,172,051 pieces of European, 341,520 pieces of American, and 670,466 pieces of Japanese shirtings and sheetings were imported. Stocks of these grey goods on November 29 were estimated at 203,757 pieces of European and 162,479 pieces of Japanese sheetings and shirtings, Assistant Trade Commissioner G. C. Howard, Shanghai, informs the Department of Commerce.

Foreign Yarn Trade Notes.

The following is a bulletin from the Textile Division, Department of Commerce:

Belgium.

Brussels.—Domestic buying of cotton yarns proceeds at a satisfactory rate, as weavers are still not covered in yarns for the fabric orders on hand. German yarn purchases, however, have not been renewed, despite the Ruhr settlement. The best foreign markets thus remain the Netherlands, Argentina, Denmark, Scandinavia, and Rumania. Prospects favor higher prices, owing to rising raw material costs in the countries of origin, and continued depreciation of the franc. American 18's are now quoted at 25-25.50 francs per kilo.—Commercial Attache Samuel H. Cross, Brussels, December 1.

Germany.

Dresden.—The carded yarn industry shows no improvement. The demand is small, in keeping with generally depressed condition in the cloth industry. Business in cotton yarns, however, is somewhat better, the spinning mills being able to operate on the average of five days a week.—Vice Consul Christian T. Steger, Dresden, November 17.

Cologne.—The textile industry is suffering a severe depression at the present time, and from the reports received from the different centers in the Cologne district, Daron, Aix-la-Chapelle, and Munchen-Gladbach it appears that production is very limited, approximately one-fourth of the mills being operated, and those only on part time. The following figures show the prices of cotton yarns according to the newly established dollar quotations. The practice of quoting prices in German paper marks has now been abandoned:

Articles	Prices Nov. 3, 1923 Dollars Per One Kilo
Cotton Yarn—	
Water yarn No. 20	0.94
Water yarn No. 30	1.05
Water yarn No. 36	1.07
Water yarn No. 40	1.10
—Vice Consul Morris Taylor, November 17.	

Austria.

Vienna.—According to the monthly report of the Austrian Association of Cotton Spinners and Weavers, there was an improvement in the spinning industry during the month of October, 1923. Statistics show that 695,399, or 71 per cent, of the total number of spindles were actually in operation during the month of October. The October production of yarn amounted to 3,573,809 pounds, an increase of one per cent over that of September. The average number of yarn from American cotton was 20.18 and Egyptian 40.91.—Assistant Trade Commissioner E. M. Zwickel, Vienna, December 7.

British India.

The output of the Indian cotton spinning mills, according to the monthly statistics of the Commercial Intelligence Department of India, in the eleven months, September, 1922, to July, 1923, was 616,000,000 pounds of yarn, compared with 640,000,000 pounds in the corresponding months of the preceding year. In the four months, April to July, 1923, the production amounted

to 208,390,000 pounds of yarn, and 12,217,000 pounds of yarn were imported from foreign countries.—Consul General Alexander W. Weddell, Calcutta, November 20.

China.

Yarn has been the object of a bear movement during the week, which succeeded in depressing prices about \$0.72 per bale for December delivery and approximately \$2.16 for futures. Prices on the Cotton Yarn Exchange as of December 8 closed as follows: (Chinese bale=440 pounds.)

	Per Bale
December	\$124.42
January	126.51
February	127.95
March	128.37
April	128.51
May	128.51

—Assistant Trade Commissioner G. C. Howard, Shanghai, December 8. The Chung Yih Industrial Works, a new company, has established a factory in Shanhaikwan Road, Shanghai, for the manufacture of threads for cross-stitch work. The threads are of brilliant color. Distribution is effected at Tientungan Road, Chapéi.—Assistant Trade Commissioner G. C. Howard, Shanghai, December 11.

Pontachrome Blue SW.

Wilmington, Del.—An afterchrome color, known as Pontachrome Blue SW, has just been placed on the market by the dyestuffs department of E. I. du Pont de Nemours & Co. It is stated to be the best that can be offered for men's wear materials containing silk effect stripes that are to be left uncolored. Cotton and artificial silk effect threads also remain white. It is intended to be used principally as a self shade, but when circumstances demand, can be shaded either with level dyeing acid colors which will stand after treatment with chrome, or with suitable chrome colors, for producing navy blues and blacks. It can be used on rawstock, slubbing, yarn and shoddy.

It dyes evenly and is very soluble, so that it can be used in all kinds of machines. In addition it penetrates well even when used on such materials as hat felts.

Latvian Wool Consumption Increases

The Latvian midsummer census of 1923 places the number of sheep at 1,461,000, against 1,161,000 in 1922 and 960,000 in 1913, Consul John P. Hurley reports from Riga. Since these figures include lambs, it is estimated that 1,000,000 sheep bear fleeces, the average weight of which is about 2.7 pounds, making an annual production of about 2,700,000 pounds. Imports of wool in 1922 were 864,864 pounds, while in the first six months of 1923 they amounted to 739,200 pounds. This would indicate a consumption of 3,500,000 pounds, of which it is estimated that fully 1,500,000 pounds are used in the home and small country plants. Approximately 300 looms are employed in all the mills of Latvia, with an estimated output of 7,500 to 8,000 yards per day. Riga mills produce about 1,000,000 yards of cloth a year and about 1,500,000 pounds of yarn.

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Cotton Goods

New York.—In the cotton goods markets last week there was steady improvement in the demand for finished goods, but mills generally complained of the low prices that kept profits down to a very narrow margin were moderate sales of percales, napped goods, colored yarn goods, wash goods and some of the domestics. Inquiry was large and covered a large variety of goods. The total volume of sales for the week was very encouraging, but it was made up principally of small orders for prompt delivery. Competition was very keen and the lack of large contracts increased the difficulty of doing business on a profitable basis.

kerchief cloths are quiet again and shirtings were dull. Because of financial difficulties, tire fabric mills are seriously considering what more lucrative product they can produce, due to the lack of seasonal orders coming through and because of the uneconomic prices at which orders are being booked. As was expected, new capital is coming forward in the form of new ownership or control. Such expedients are not likely to alleviate the situation, reports indicate. What the market needs is fewer looms and better prices through minimized competition.

Cotton goods prices were quoted as follows:

In the primary markets prices were irregular and much of the business done was between second hands. The irregularities prevailing in the markets and the present price situation is clearly reflected in a comparison between present cotton prices and goods prices and those of a year ago. At this time last year, cotton was selling at 28.60 a pound, as against today's price of 33.80. A year ago, staple print cloths were being sold at 58.85 cents a pound, while sales were reported at the close of last week at 53.5 cents. With cotton at a higher level than was prevailing at this time last year, some of the staple cotton goods are selling at 5 cents a pound under last year's prices.	Print cloths, 28-in., 64x60s. 7%
Print cloths sold at 9 cents for 38 1/2-inch 60x48s. Sales of 64x60s were made early in the day at 10 cents and later at 10 1/2 cents for spots. Sales of March goods were made in one instance from second hands at 10 1/4 cents. Sales of 38 1/2-inch 8.20s were made at 7 1/4 cents and 39-inch 56x44s at 8 1/2 cents.	Print cloths, 27-in., 64x60s. 7 1/2%
Sheetings showed little change in price for the week. If anything, they were firmer at the low prices recently quoted. Some sellers want 12 1/2 cents for 4-yard 48s, while sales have been made at 12 cents and 12 1/4 cents. For 5.50s 9 1/4 cents was the best that could be done and that was not general. Sales of 40-inch 3.60s were made at 14 cents.	Gray goods (38 1/2-in., 64x64s. 10%
Sateens continue weak and irregular, due to offerings from second hands. Sales of 39-inch 3.50s were made at 19 cents. It was said that 4.20s could be had in some places in small lots at 15 1/2 cents.	Gray goods, 39-in., 68x72s. 12
Most of the business passing in fine cloths is being done on plain tussahs. Some jacquard weaves have been sold on contract. Hand-	Gray goods, 39-in., 80x80s. 15
	Brown sheetings, 3-yard. 16 1/4%
	Brown sheetings, 4-yard. 13%
	Brown sheetings, standard. 17 1/4%
	Tickings, 8-ounce. 30
	Denims. 26
	Staple gingham, 27-in. 13 1/2%
	Kid finished cambries. 10 1/4a11 1/2%
	Dress gingham. 21 1/2a24
	Standard prints. 10%

Textile Company Organized in Poland.

A new export organization has been formed among the textile manufacturers of Lodz under the name of "National Textile Association for Import and Export." The association has been incorporated under the laws of Poland and most of the stockholders are members of the National Union of the Textile Industry. The corporation will emphasize trade with Russia, Consul General L. J. Keena, at Warsaw, reports. It is hoped to organize a similar corporation in Russia and eventually to merge the two into a Polish-Russian Trading Company.

Peruvian Piece Goods Market Active

There has been considerable competition in the Peruvian market for textiles and orders for these products are being actively completed for by English and Italian merchants who are, at the present, underbidding Americans. The market for print goods is in the hands of the American manufacturers, but broads and similar textiles are sold by the English and Italians, according to a report from Consul C. E. Guyant, Lima.

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The Yarn Market

Philadelphia, Pa. — Although inquiry and buying in the yarn market showed some improvement last week, trading was largely of the hand-to-mouth character that has prevailed for many weeks. Heavy shipments of yarn to this market are said to be holding prices down and the greater part of the sales were of stock yarn. Prices showed wide variation, with spinners holding firmly to their quoted prices and dealers showing a willingness to sell yarns cheap when the opportunity presented. The cotton market continued to be the most uncertain feature of the market.

A dealer who submitted a price of 55½ cents for 26-2 carded tubes reported that the mill would not consider it, but that he later found a reseller who took the order on a basis of 55 cents. These prices are cited as an illustration of the conditions prevailing in the market and the difficulty spinners find in getting anything like a fair price for their yarns. An order for 30s-2 carded skeins was reported as being filled from stock at the low price of 56½ cents.

The insulating, carpet and lace trades were reported as being the most active buyers of yarns during the week. Business in knitting yarns was reported as being done "at a price." Combed yarns continued very quiet, with little change in spinners' quotations. Prices on mercerized yarns declined somewhat, due to the almost entire lack of demand.

The following yarn quotations were published in this market:

Two-Ply Chain Warps.	
2-ply 8s	47 a
10s	48 a49
12s to 14s	50 a
2-ply 16s	52 a
2-ply 20s	52½ a53
2-ply 24s	55½ a
2-ply 26s	56 a
2-ply 30s	58½ a60
2-ply 40s	67 a68
2-ply 50s	80 a82
Two-Ply Skeins.	
8s	45 a46
10s to 12s	46 a47
14s	49 a
16s	50½ a
20s	51½ a
24s	55 a
26s	55½ a
30s	57½ a
36s	64 a
40s ex.	72 a74
50s	81 a
60s	83 a
Tinged Carpet	
3 and 4-ply	43 a
White Carpet	
3 and 4-ply	45 a
Part Waste Insulating Yarns.	
6s, 1-ply	42½ a43
8s, 2, 3 and 4-ply	43 a
10s, 1-ply and 2-ply	44 a
12s, 2-ply	45 a46
20s, 2-ply	51 a
26s, 2-ply	54½ a
30s, 2-ply	57 a
Duck Yarns.	
3, 4 and 5-ply	46 a
8s	46½ a
10s	47 a
12s	47 a
16s	51 a
20s	52 a
Single Chain Warps.	
10s	47 a
12s	48 a

14s	49 a
16s	50 a51
20s	50 a51
24s	51 a
26s	54 a
30s	55 a
40s	58 a
70s	70 a

Single Skeins.	
6s to 8s	46 a
10s	47 a
12s	48 a
14s	48½ a
16s	49 a50
20s	51 a
24s	54½ a
26s	55 a
30s	58 a

Frame Cones.	
8s	47 a
10s	47½ a
12s	48 a
14s	48½ a
16s	49 a
18s	49 a
20s	50 a
22s	51½ a
24s	52 a
26s	54 a
28s	55 a
30s	57 a
30s bdl. ord.	50 a
30s tying in	57 a
40s	66 a68

Combed Peeler Skeins, Etc.	
2-ply 10s	65 a
2-ply 20s	68 a70
2-ply 30s	73 a75
2-ply 36s	78 a80
2-ply 40s	80 a82
2-ply 50s	90 a93
2-ply 60s	95 a1 00
2-ply 70s	1 05a1 10
2-ply 80s	1 20a1 25

Combed Peeler Cones.	
10s	57 a58
12s	58 a59
14s	59 a60
16s	60 a61
18s	61 a62
20s	62 a62½
22s	63 a63½
24s	63½ a64
26s	64½ a65
28s	65 a66
30s	66 a68
32s	71 a73
34s	73 a75
36s	78 a80
38s	79 a81
40s	80 a82
50s	85 a90
60s	95 a1 00
70s	1 10a1 15
80s	1 25a1 30

Carded Thread Twist Skeins.	
20s, 2-ply	61 a
22s, 2-ply	62 a
24s, 2-ply	63 a
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10s	52 a
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Bahama Cotton Goods Imports.

Although there is a 25 per cent duty preference on cotton goods in favor of British products, American exporters furnish practically all these goods imported into Bahamas. The total imports of piece goods into the Bahamas in 1921 were 1,477,451 yards, valued at \$140,797, and in 1922, 1,540,500 yards, valued at \$173,085. In 1921 the United States supplied all of the duck, 98 per cent of the piece goods, and 75 per cent of other cotton manufactures, says Consul L. A. Lathrop, Nassau.

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WANT position as overseer weaving. Familiar with variety of weaves and can furnish excellent references. Address No. 3805.

WANT position as superintendent, overseer weaving. Thoroughly trained in all departments of mill, I. C. S. graduate. Understand jacquard weaving. Age 30, married, no bad habits. Good references. Address No. 3806.

WANT position as overseer spinning or as assistant superintendent by man who can get results, either yarn or weave mill. Best of references. Address No. 3807.

WANT position as overseer spinning. Age 37, 12 years as overseer. First class references. Address No. 3808.

WANT position as superintendent, or overseer large card or spinning room. High class man, experienced and practical, references to show good past record. Address No. 3809.

WANT position as superintendent of large yarn mill. Have been overseer and superintendent in some of best yarn mills in North Carolina. Have fine record as to quality and quantity at low cost. Address No. 3810.

WANT position as carder or spinner or both. Capable of handling large room in first class man. Long experience, fine references. Address No. 3811.

WANT position as carder or spinner. Experienced mill man, now running card room at night but want day job. Good references as to character and ability. Address No. 3812.

WANT position as superintendent. Practical man of long experience and ability to get good results. Now employed as superintendent. Good references. Address No. 3813.

WANT position as master mechanic. Have had 24 years experience in cotton mill shops both steam and electric drive. References. Address No. 3813-A.

WANT position as overseer weaving on Draper looms, plain white goods preferred. Now employed, but desire better job. Good references from good mill men as to character and ability. Address No. 3815.

WANT position as overseer carding. Good man, now employed, but wish better position. First class references showing good past record. Address No. 3816.

WANT position as superintendent of yarn or weave mill. Long experience in carding, spinning and weaving, and winding. Can get quantity and quality production at lowest cost. Age 39, good character and references. Address No. 3817.

WANT position as superintendent. Practical manufacturer of ability and experience. Good manager of help. Fine references. Address No. 3818.

WANT position as overseer weaving. First class weaver in every respect, sober, reliable and hard worker. Experienced on wide variety of goods. Good references. Address No. 3819.

WANT position as superintendent or manager of yarn or cloth mill in the Carolinas. Now general superintendent of large mill, have held job satisfactorily for three years but have good reasons for wanting to change. Good references. Address No. 3821.

WANT position as superintendent, overseer carding or assistant superintendent on yarn or plain cloth mill. High class, reliable man, good manager of help. A-1 references. Address No. 3822.

WANT position as overseer weaving. Strictly high class man of good character; long experience in weaving, best of references. Address No. 3823.

WANT position as superintendent, or carder or spinner. Now employed as spinner in mill on fine yarns and am giving entire satisfaction, but want larger place. Good references. Address No. 3824.

WANT position as superintendent, carder or spinner. Practical man of long experience in good mills. Fine references. Address No. 3825.

WANT position as master mechanic. Now employed, but want larger job. Many years experience as mechanic, steam and electric drive. Excellent references. Address No. 3826.

WANT position as superintendent or traveling salesman. Experienced mill man and can give excellent references. Address No. 3827.

WANT position as superintendent. Have held position as such in some of the best mills in South and give satisfactory references to any mill needing first class man. Address No. 3827.

WANT position as master mechanic. Long experience in mill machine shop, fully competent to handle large job. Fine references. Address No. 3829.

WANT position as overseer carding or spinning, or superintendent. Practical man who has had many years experience as superintendent and overseer and can get satisfactory results. Best of references. Address No. 3821.

WANT position as superintendent of yarn mill or carder or spinner. Thoroughly familiar with these departments and am well qualified to handle either a room or a mill. Good references as to character and ability. Address No. 3832.

WANT position as superintendent of mill in North Carolina making yarns or print cloths. Now employed as superintendent of 27,000 spindle mill making 30s hosiery yarn and 64x60s print cloth. Am giving satisfaction but have good reason for making change. Best of references. Address No. 3833.

WANT position as superintendent or overseer carding. Long experience as both and can get good production at low cost. Would like to correspond with mill needing high class man. Address No. 3834.

WANT position as overseer of carding. Good worker of long experience in number of good mills. First class references to show past record. Address No. 3835.

WANT position as superintendent or overseer carding and spinning. Now employed, but wish larger place. Competent, reliable man who can give satisfaction in every way. Good references. Address No. 3836.

WANT position as superintendent or manager. Have had long experience as superintendent and am high class man in every respect. Can handle mill on any class of goods made in South. Want to correspond with mill needing high class executive. Excellent references from reliable mill men. Address No. 3837.

WANT position as overseer weaving. Practical weaver who can get big production at the right cost. Fine references. Address No. 3838.

WANT position as overseer weaving. Can handle any fabric made in South. Have had over 27 years experience from loom fixer to overseer weaving and was promoted steadily by one of largest mills in the South. Married, have family, religious worker, good manager of help. Can give excellent list of references. Address No. 3839.

WANT position as superintendent, prefer South Carolina or Georgia. Now employed as assistant superintendent and weaver and am giving entire satisfaction. Have good reasons for wishing to change. Excellent references. Address No. 3840.

WANT position as overseer weaving, prefer job of fancies. Have been weaver for past 10 years with one of the finest mills in the South. Excellent references to show a fine record. Address No. 3841.

WANT position as superintendent, yarn mill preferred. High class man who is well trained and has had long experience. Best of references. Address No. 3842.

WANT position as superintendent. Now employed as such, but want better job. Can weaver as well as superintend

and get operate weave mill on very satisfactory basis. Address No. 3843.

WANT position as superintendent, carder or spinner. Now employed as superintendent. Long experience as both overseer and superintendent and can get satisfactory results. Address No. 3844.

WANT position as overseer carding. Have had long experience and can furnish best of references from past and present employers. Address No. 3852.

WANT position as overseer weaving. Experienced in wide variety of fabrics and can give satisfaction. Now employed. Best of references. Address No. 3853.

WANT position as dyer, 12 years experience on long and short chain work, raw stock, beam and Franklin machines. Can handle any size jobs on cotton. Good references and can come on short notice. Address No. 3854.

WANT position as overseer carding. Experienced an drelable man who can handle your room on efficient and satisfactory basis. Good references. Address No. 3855.

WANT position as superintendent of medium sized mill or weaver in large mill, white or colored goods; 20 years as overseer weaving, slashing and beaming in number of South's best mills. Have held present place for nine years and am giving entire satisfaction. Address No. 3856.

WANT position as superintendent of plain or fancy goods mill, would consider offer of medium size mill at reasonable salary. Thoroughly conversant with all departments. Address No. 3857.

WANT position as superintendent of yarn or cloth mill, gingham preferred; age 40, have family; 22 years experience, 8 years as carder and spinner and assistant superintendent; have held last position as superintendent for 7 1-2 years. N. mill preferred. Good references. Address No. 3858.

WANT position as overseer weaving or superintendent. Long experience in good mills and can get good results. Best of references. Address No. 3859.

WANT position as overseer carding; age 33, married, 14 years in carding; 5 years as overseer. Now employed but have good reasons for wishing to change. Address No. 3860.

WANT position as superintendent of weaving mill, or would take overseer weaving in large mill on plain or fancy goods. Now employed in good plant and can give good references. Fine record in good mills. Address No. 3861.

WANT position as overseer spinning, 17 years in spinning room, now employed as second hand in 35,000 spindle room; age 28, married, sober, reliable and church member. Good references. Address No. 3862.

WANT position as overseer spinning, spooling or twisting. Age 29, married, 10 years on spinning. Can furnish good reference. Address No. 3863.

WANT position as carder or spinner, or both. Age 35, married, practical carder and spinner and can furnish fine references as to character and ability. Address No. 3864.

WANT position as overseer spinning, or carding and spinning, can give good references as to character and ability, strictly sober, now employed but have good reasons for wishing to change. Address No. 3865.

WANT position as overseer cloth room, experienced on drills and sheetings; also colored goods. Can give A1 references. Address No. 3867.

WANT position as carder or spinner, or both. Experienced and reliable man, who can produce good results. Good references. Address No. 3868.

WANT position as superintendent, now employed as such, but wish to change; 4 years in present place, 8 years as carder and spinner or both warp and hosiery yarns, 5 years as spinner, been in mill over 25 years, thoroughly understand all processes from picker room to winding and twisting. Good knowledge of steam and electricity. Address No. 3869.

WANT position as overseer spinner, at \$30 weekly or more, now employed in good mill, practical and experienced man. Best of references. Address No. 3870.

WANT position as superintendent or weaver; long practical experience, and can produce quality and quantity production. Address No. 3871.

WANT position as overseer weaving; 12 years on heavy duck, 14 years as overseer on sheetings, drill, osbaugs, grain bag, tubing and rope machines; am 48. Can change on short notice. Good references. Address No. 3872.

WANT position as overseer weaving, experienced on large variety of goods and can handle room on efficient basis. Address No. 3873.

WANT position as superintendent of small mill, or weaver in large plant; now employed as overseer slashing, warping and drawing-in on 360 Draper looms. Good references. Address No. 3874.

WANT position as superintendent, yarn or weave mill. Now employed, but wish larger place. Excellent past record. Good references. Address No. 3875.

WANT position as agent superintendent or manager of Southern mill on white work. Would be interested in buying stock. Can furnish best of references and can show results. Address No. 3876.

WANT position as overseer weaving, now running 800 looms and giving satisfaction; familiar with colored checks, chambrays, many other lines; age 39, married, good references. Address No. 3877.

WANT position as overseer weaving; age 29, married, I. C. A. graduate, experienced on plain and fine work including all kinds of cotton towels and specialties. Good references. Address No. 3879.

WANT position as superintendent; 28 years experience in mill, have held present place as superintendent for 8 years, have good reasons for wanting to change. Best of references. Address No. 3880.

WANT position as supt. of yarn mill, or carder and spinner. Now employed as carder. Can furnish good references to show my record. Address No. 3881.

WANT position as carder in large mill, or supt. of small yarn mill; 20 years as carder and spinner; mostly in carding and assistant supt. Now employed as carder and assistant supt. Good references. Address No. 3882.

WANT position as carder or spinner, or both. Practical man of long experience; have excellent references. Address No. 3882.

WANT position as supt. or weaver, long experience in good mills, excellent references to show character and ability. Address No. 3883.

WANT position as supt. of spinning mill, practical experienced man of good ability and can get results. Address No. 3884.

WANT position as supt. and manager of small or medium mill, or overseer of large, good paying weave room. Excellent references. Address No. 3885.

WANT position as master mechanic; 20 years experience, now employed, good references to show excellent past record. Address No. 3886.

WANT position as carder and spinner or both, or supt.; 25 years in mill, 18 as supt.; married, have family. Address No. 3887.

WANT position as spinner, white work preferred; experienced and reliable man. Can come on short notice. Best of references. Address No. 3888.

WANT position as overseer of spinning, now employed as such and giving satisfaction, but wish larger place. Married, good habits, reliable and competent. Good references. Address No. 3889.

WANT position as overseer spinning. Experienced spinner, practical and capable, good character and habits, best of references. Address No. 3890.

WANT position as supt. or would take carding or spinning. Good references to show an excellent past record and can produce good results. Address No. 3891.

WANT position as carder or spinner in large mill, or supt. of small or medium size mill. Long experience in good mills; good manager of help. First class references. Address No. 3892.

WANT position as supt. of small mill, with opportunity of investing in mill and advance. Long experience as overseer, good character, inventor and owner of patent that will be of great value to mill equipped to use waste sock. Patent would give mill big advantage in manufacture of twine, rope and similar products. Would take stock for entire amount of pattern and invest small amount in addition, or would consider new mill. Address No. 3893.

WANT position as master mechanic. Long experience on both steam and electric work, 14 years in mill shops, good references. Address No. 3895.

WANT position as supt., assistant supt., carder or spinner, mule or ring frames good man of long experience, many references. Address No. 3896.

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Keefer Starch Co., Greenville, S. C.
Klauder-Weldon Dyeing Machine Co., Bethayres, Pa.
Klipstein, A. & Co., New York City.
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Lampe, Thomas Co., Fort Worth Texas.
Lesser-Goldman Cotton Co., Charlotte, N. C.
Lestershire Spool & Mfg. Co., Johnson City, N. Y.
Leverett & Moore, Hillsboro, Texas.
Link-Belt Co., Chicago, Ill.
Lockwood, Greene & Co., Boston, Mass.
Lowell Shuttle Co., Lowell, Mass.
Lupton's Sons Co., David, Philadelphia, Pa.
- M—
Macrodi Fibre Co., Woonsocket, R. I.
Magruder, L. W. & Co., Memphis, Tenn.
Marston, John P. Co., Boston, Mass.
Mathieson Alkali Co., New York City.
Mauney Steel Co., Philadelphia, Pa.
Marrow Machine Co., Hartford, Conn.
Metallic Drawing Roll Co., Indian Orchard, Mass.
Metz, H. A. & Co., New York City.
Mill Devices Co., Durham, N. C.
Minter Homes Co., Greenville, S. C.
Moreland Sizing Co., Spartanburg, S. C.
Morse Chain Co., Ithaca, N. Y.
Mossherg Pressed Steel Corp., Attleboro, Mass.
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McCaughy, Edward J., Pawtucket, R. I.
McCauley, J. N. & Co., Charlotte, N. C.
McClave-Brooks Co., Scranton, Pa.
- N—
National Aniline & Chemical Co., New York City.
National Ring Traveler Co., Providence, R. I.
Newburger Cotton Co., Memphis, Tenn.
N. Y. & N. J. Lubricant Co., New York City.
Nichols Mfg. Co., Asheville, N. C.
Norwood Engineering Co., Florence, Mass.
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Okla. Cotton Growers' Assn., Oklahoma City, Okla.
Oliver, B. F. & Co., Clarksdale, Miss.
- P—
Page Fence & Wire Products Assn., Chicago, Ill.
Paige, Schoolfield & Co., New York City.
Palmetto Loom Harness & Reed Works, Greenville, S. C.
Parker, Walter L. Co., Lowell, Mass.
Parker, B. H. & Co., Gastonia, N. C.
Parks-Cramer Co., Fitchburg, Mass.
Paulson, Linkroum & Co., New York City.
Pawtucket Spinning Ring Co., Central Falls, R. I.
Penick & Ford, Cedar Rapids, Iowa.
Perkins, B. F. & Son, Holyoke, Mass.
Poland Soap Works, Anniston, Ala.
- R—
Rash, Brin & Co., Terrell, Texas.
R. I. Warp Stop Equipment Co., Pawtucket, R. I.
- Rice Dobby Chain Co., Millbury, Mass.
Ridley, Watts & Co., New York City.
Robinson, John L. & Co., Memphis, Tenn.
Roessler & Hasslacher Chemical Co., New York City.
Rogers Fibre Co., Boston, Mass.
Rogers, J. F. & Co., Clarksdale, Miss.
Root Co., Bristol, Conn.
Rose, Geo. M., Jr., Charlotte, N. C.
Roy, D. S. & Son, Worcester, Mass.
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Saco-Lowell Shops, Charlotte, N. C.
Sanders, Orr & Co., Charlotte, N. C.
Sayles Finishing Plants, Inc., Saylesville, R. I.
Seaboard Ry., Charlotte, N. C.
Sellers, William & Co., Philadelphia, Pa.
Shambow Shuttle Co., Woonsocket, R. I.
Sirrline, J. E. & Co., Greenville, S. C.
S. K. F. Industries, New York City.
Sonoborn, L. Sons., New York City.
Sonoco Products, Hartsville, S. C.
Southern Distributing Co., Charleston, S. C.
Southern Ry., Charlotte, N. C.
Southern Spindle & Flyer Co., Charlotte, N. C.
Southern Textile Machinery Co., Greenville, S. C.
Southern Wood Preserving Co., Atlanta, Ga.
Spinks, John D., Winston-Salem, N. C.
Stafford Co., Readville, Mass.
Steel Heddle Mfg. Co., Philadelphia, Pa.
Stein, Hall & Co., New York City.
Stewart Bros. Cotton Co., Charlotte, N. C.
Sugar Creek Coal Sales Co., Mount Hope, Va.
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Sydnor Pump & Well Co., Richmond, Va.
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Textile Mill Supply Co., Charlotte, N. C.
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United Chemical Products Co., Jersey City, N. J.
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U. S. Ring Traveler Co., Providence, R. I.
Universal Winding Co., Boston, Mass.
- V—
Vermont Spool & Bobbin Co., Burlington, Vt.
Victor Ring Traveler Co., Providence, R. I.
Vogel, Joseph A. Co., Wilmington, Del.
- W—
Wadsworth, Howland & Co., Boston, Mass.
Watson, L. S. Mfg. Co., Leicester, Mass.
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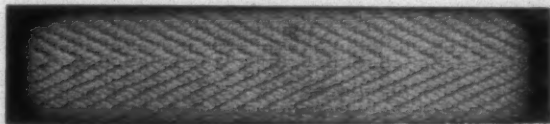
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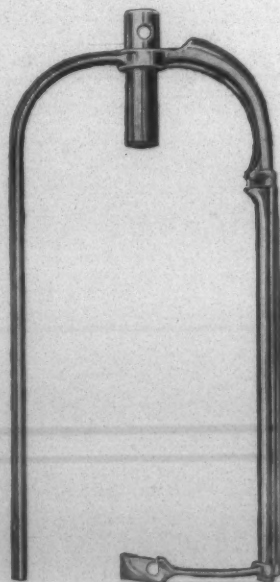
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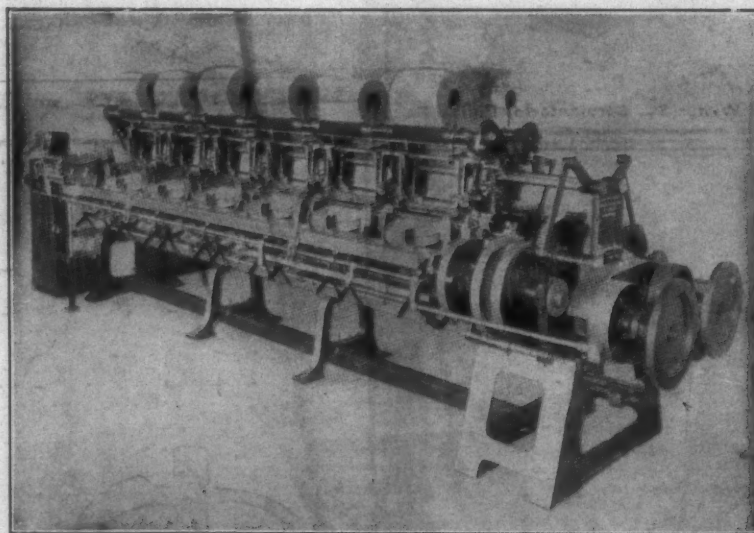


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